

ROYAL
4 - MAY 1903
COLL

THE SEVENTH ANNUAL REPORT

ON THE
Health of the County Borough of Wigan,

FOR THE YEAR ENDING DECEMBER 31st, 1902,

BY

WILLIAM BERRY,

F.R.C.S.I., D.P.H., F. P. & S., Glasgow.

Fellow of the Incorporated Society of Medical Officers of Health,

Fellow of the Sanitary Institute.

Fellow of the Royal Institute of Public Health, and

Fellow of the Royal Academy of Medicine, Ireland.

Medical Officer of Health, and

Medical Superintendent of the Borough Sanatorium for Infectious Diseases.



WIGAN:

THOS. WALL AND SON LIMITED, PRINTERS, "OBSERVER" OFFICE.

1903.



THE SEVENTH
ANNUAL REPORT

ON THE
Health of the County Borough of Wigan,

FOR THE YEAR ENDING DECEMBER 31st, 1902,

BY

WILLIAM BERRY,

F.R.C.S.I., D.P.H., F. P. & S., Glasgow.

Fellow of the Incorporated Society of Medical Officers of Health,

Fellow of the Sanitary Institute.

Fellow of the Royal Institute of Public Health, and

Fellow of the Royal Academy of Medicine, Ireland.

Medical Officer of Health, and


Medical Superintendent of the Borough Sanatorium for Infectious Diseases.



WIGAN:

THOS. WALL AND SON LIMITED, PRINTERS, "OBSERVER" OFFICE.

—
1903.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30276196>

TABLE OF CONTENTS.

	PAGE
Sanitary and Sewerage Committee...	4
Medical Officer of Health's Department ...	5
Statistical Summary for 1902 ...	8
Acreage, Population, Births, and Mortality Rates ...	8
Weekly Returns of Births and Mortality Rates ...	10
Monthly Table of Deaths from all Causes...	11
Comparative Statistics between Wigan and other Towns ...	11
Death Rate for Wigan during the last 10 years ...	12
Causes of Death :	
The Zymotic Diseases ...	15
Small Pox ...	16
Scarlet Fever ...	43
Measles ...	46
Whooping Cough ...	47
Typhus ...	47
Enteric Fever ...	47
Diarrhoea ...	50
Diphtheria ...	51
Erysipelas ...	51
Puerperal Fever ...	52
Mumps ...	52
Sanatorium ...	1
Notification of Infectious Disease ...	62
Number of Notifications compared with other years ...	62
Cost of Maintenance, etc. ...	62
Table of Admissions and Discharges ...	63
Total Cost of Sanatorium—Staff ...	64
Cost of Administration ...	64
Constitutional Diseases :	
Tubercular Diseases...	65
Rheumatism...	65
Local Diseases :	
Respiratory Diseases ...	66
Inquests and Uncertified Deaths ...	66
Property Unfit for Human Habitation ...	67
Bakehouses ...	67
Factory and Workshops Act and Shop Hours Act, 1892-1895, and 1899 and 1901 ...	68
Dairies and Cowsheds and Milk Shops Order, 1885 and 1886 ...	71
Meat Inspection and Slaughter-houses ...	73
Black Smoke Nuisances ...	74
Water Supply ...	74
Rainfall ...	76
Unpaved Yards and Passages ...	76
Borough Surveyor's Department ...	76
Wigan Corporation Act, 1902 ...	77
Appendix I. ...	95
List of Deaths in the various Wards ...	97
Local Government Board, Schedules ...	101
Returns—Charts I., II., III., IV., V., VI. ...	Facing 104

SANITARY & SEWERAGE COMMITTEE.

From November, 1902, to November, 1903.

CHAIRMAN :

ALDERMAN J. PHILLIPS, J.P.

VICE-CHAIRMAN :

COUNCILLOR FERD. REES, M.D.

HIS WORSHIP THE MAYOR (RICHARD JOHNSON, J.P.)

THE EX-MAYOR (ALDERMAN R. E. KELLETT, J.P.)

ALDERMAN J. T. GEE, J.P.

„ LEVI BOOTH, J.P.

COUNCILLOR THOMAS ASHTON

„ RICHARD BANNISTER

„ MATTHEW BENSON, M.D.

„ HENRY FARRIMOND.

„ JAMES HOWARD.

„ WILLIAM LEYLAND.

„ WILLIAM LOWE.

„ JAMES O'DONAHUE.

„ WILLIAM WILSON.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT.



Medical Officer of Health and Medical Superintendent of Sanatorium :

WILLIAM BERRY, F.R.C.S.I., D.P.H., F.P.S. Glasgow,
Fellow of the Incorporated Society of Medical Officers of Health,
Fellow of the Sanitary Institute,
Fellow Royal Inst. Public Health, and
Fellow of the Royal Academy of Medicine, Ireland.

Chief Sanitary Inspector :

JOHN SUMNER, Certif. San. Inst. and Assoc. San. Inst.

Assistant Sanitary Inspectors :

CHARLES H. FRANOE, Certif. San. Inst. and Assoc. San. Inst.

FRED. MARTLEW, Certif. San. Inst.

M. CLUNAN, Certif. San. Inst.

Smoke, Shop Hours Act, and Factory and Workshop Acts :

FRED. G. BISHOP.

Clerk :

JOHN ASHTON.

Disinfector :

MARCUS JEPHSON.

Master of Sanatorium :

MICHAEL MOORE.

CORPORATION OF WIGAN.

OFFICER OF HEALTH'S DEPARTMENT,

FEBRUARY 19TH, 1903.

*To the Chairman and Members of the Sanitary
Committee.*

GENTLEMEN,

I have the honour to present you with my Seventh Annual Report on the health of your County Borough for the year 1902.

The death-rate for the year is 20·25 per 1000 of the population against 22·30 in 1901. This diminution of 2·05 is due chiefly to the fewer deaths from Zymotic Diarrhœa, the deaths from this disease being fewer than in any preceding year, and had it not been for an increased number of deaths from other Zymotic diseases we should have had a still lower rate.

During the year we had a greater number of cases of Scarlet Fever, but a decline in the number of cases and deaths from Measles.

The fewer number of deaths from Diarrhœa cannot be attributed entirely to a widespread improvement in the care and nursing of young children, but was largely due to the cool Summer and Autumn.

Measles became prevalent in May amongst the scholars of St. Thomas's Schools, Caroline Street, and it was desirable to close the same for a period of 14 days, May 5th.

Mumps appeared in epidemic form in Poolstock Ward, and it became necessary to close St. James's (Poolstock) Schools from the 12th of May to May 26th, a period of 14 days. No other schools were closed during the year on account of infectious disease.

Small Pox after nearly seven years' absence appeared in December in a common lodging-house, and the cases were at once removed to the Decker Hospital. Prompt measures were taken with regard to the inmates who had been in contact, and with good effect.

I am pleased that a new Scarlet Fever Block (the Gee Block) has been opened, as this will enable us to isolate more of our Scarlet Fever cases.

In conclusion, I beg to record my thanks to the Chairman and Members of the Committee for their support in all matters appertaining to public health work, also to the Medical men who have loyally assisted the Sanitary Department by the notification of infectious diseases, and in other cases of sickness of doubtful character.

I beg also to thank the Sanitary Inspectors, especially the Chief Inspector (Mr. Sumner) for their assistance and promptness in carrying out my instructions.

I am, Gentlemen,

Your obedient Servant,

WM. BERRY,

MEDICAL OFFICER OF HEALTH.

REPORT.

STATISTICAL SUMMARY FOR 1902.

Population estimated July 1st, 1902		61,827
<i>Births</i>	<div> {Males..... 1147} <div>Total</div> {Females... 1164} </div>	2311
Annual rate of births per 1,000 of population		37·42
Ditto for England and Wales		28·60
Illegitimate births, 124, or 2·0 a percentage of		5·36
<i>Deaths</i>	<div> {Males..... 677} <div>Total</div> {Females... 574} </div>	1251
Annual rate of mortality		20·26
Ditto in England and Wales		16·30
Death rate in 76 great towns		17·4
Ditto 103 smaller „		15·3
Excess of registered births over deaths		1060
Total deaths from zymotic diseases		203
Annual rate of mortality from zymotic diseases		3·27
Ditto in England and Wales		1·64
Total deaths from diarrhœa		57
Annual rate of mortality from diarrhœa ...		·92
Infantile rate (deaths per 1,000 births), 1902		158
Ditto for England and Wales		133

Acreage.—With an acreage of 2,188, and a population estimated at 61,827, we have 28·21 persons per acre.

Population.—The population estimated at the middle of the year (June 30th, 1902) is 61,827, and this may be taken as fairly correct.

Births.—The number of births registered during 1902 is 2,311 (males, 1,147; females, 1,164), the rate per 1,000 of the population being 37·42. The birth rate, compared with 1901, is 0·62 higher. The illegitimate births number 124, or 5·36 per cent.

The Mortality Rate.—The deaths for 1902 number 1,251 (677 males, 574 females), being an excess of 103 males over the females. The rate per 1,000 of the population per annum is 20·25; in 1891, 22·30; thus we have a decrease in number of deaths of 128, equal to rate of 1·70.

The death rate for each quarter is as follows :—

1902.	All causes.	Zymotics.
1st Quarter ...	19·36	1·56
2nd „ ...	22·52	2·98
3rd „ ...	19·34	5·10
4th „ ...	19·78	3·46

The zymotic rate shows a decrease for 1902; it is 3·27. The previous year it was 4·84, showing a decrease of 157, this being largely due to a decrease in the number of deaths from diarrhoea.

THE VITAL STATISTICS FOR ENGLAND AND WALES DURING 1902.

ENGLAND AND WALES, 1902.

Birth rate	28·6	per 1,000 living.
Death rate	16·3	„ „
Seven epidemic diseases ...	1·64	„ „
Infant mortality.....	133	per 1,000 births.

TABLE I.

WEEKLY RETURN OF BIRTHS AND DEATHS FOR 1902.

1902 WEEK ENDING.		Deaths from all Causes.	Annual Rate per 1,000.	Deaths from Zymotic.	Zymotic Rate.	Births.	Annual Rate per 1,000.
January	4	24	19.54	—	—	54	45.87
"	11	25	21.24	—	—	42	35.68
"	18	27	22.92	1	.84	63	53.48
"	25	19	16.12	1	.84	41	34.80
February	1	19	16.11	3	2.54	51	43.25
"	8	32	27.14	2	1.69	49	41.56
"	15	22	18.57	1	.84	27	22.89
"	22	36	30.50	4	3.40	62	52.54
March	1	26	22.03	4	3.39	38	32.20
"	8	21	17.79	4	3.38	47	39.83
"	15	11	9.31	1	.84	39	33.01
"	22	20	16.93	2	1.69	49	41.49
"	29	16	13.53	1	.84	30	25.38
April	5	36	30.45	4	3.38	59	50.00
"	12	18	15.21	2	1.68	51	43.11
"	19	17	14.37	1	.84	45	38.03
"	26	23	19.42	1	.84	46	38.85
May	3	33	27.87	4	3.37	39	32.93
"	10	16	13.50	1	.84	43	36.31
"	17	34	28.71	4	3.37	45	38.00
"	24	25	21.09	6	5.06	32	27.00
"	31	22	18.56	3	2.53	48	38.81
June	7	30	25.29	8	6.74	45	37.94
"	14	33	27.82	8	6.74	34	28.66
"	21	27	22.76	1	.84	38	32.03
"	28	33	27.82	3	2.52	31	26.13
July	5	31	26.13	4	3.37	42	35.41
"	12	22	18.54	6	5.05	37	31.19
"	19	24	20.21	3	2.52	51	42.96
"	26	12	10.10	2	1.68	43	36.22
August	2	27	22.72	4	3.36	50	42.09
"	9	26	21.88	3	2.52	38	32.00
"	16	26	21.88	7	5.89	53	44.61
"	23	12	10.09	4	3.36	46	38.68
"	30	27	22.69	8	6.72	50	42.01
September	6	20	16.80	7	5.88	41	34.45
"	13	18	15.12	9	7.56	39	32.77
"	20	28	23.50	13	10.91	41	34.42
"	27	26	21.83	9	7.55	46	38.62
October	4	26	21.82	8	6.71	46	38.53
"	11	34	28.54	11	9.23	44	36.94
"	18	26	21.81	4	3.35	40	33.55
"	25	23	19.27	6	5.05	43	36.07
November	1	23	19.27	4	3.35	52	43.58
"	8	21	17.60	2	1.67	51	42.75
"	15	24	20.10	2	1.67	46	38.52
"	22	16	13.40	2	1.67	49	41.03
"	29	25	20.92	4	3.34	37	30.98
December	6	13	10.87	1	.83	47	39.33
"	13	25	20.92	3	2.34	44	36.82
"	20	28	23.41	4	3.34	40	33.19
"	27	23	19.23	3	2.50	47	39.29

TABLE II.

MONTHLY TABLE OF DEATHS FROM ALL CAUSES AND ZYMOTIC DISEASES WITH RATES PER 1,000 PER ANNUM.

MONTH.	No. of Deaths from all Causes	Annual Rate per 1 000 living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 living.	Deaths of	
					Infants under 1 yr.	Persons over 60 yrs.
January	95	19.95	2	.42	22	18
February	109	23.08	10	2.13	28	18
March	94	15.91	12	2.03	25	18
April	94	19.86	8	1.68	30	16
May	130	21.94	18	3.05	26	28
June	123	25.92	20	4.21	34	15
July	89	18.74	15	3.17	25	14
August	118	19.85	26	4.37	31	19
September	92	19.31	38	7.97	45	6
October	109	22.88	29	6.08	43	17
November	109	18.26	14	2.34	36	17
December	89	18.60	11	2.25	21	16
Totals	1251	20.25	203	3.27	366	202

TABLE III.

TABLE SHOWING COMPARATIVE STATISTICS BETWEEN WIGAN AND OTHER TOWNS DURING 1902.

TOWN.	Popula- tion.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death rate per 1,000 Births.	Average Death rate last 10 years.
Accrington	43,500	23.58	13.74	.89	130.60	16.22
Birkenhead	112,102	32.52	17.74	2.4	151	18.69
Blackburn	130,094	25.8	17.1	1.36	156	20.29
Blackpool	52,174	23.96	12.99	1.09	118.4	17.40
Bradford	281,770	23.33	16.00	1.41	138.5	18.2
Bootle	60,000	32.4	18.9	2.7	154	19.9
Burton-on-Trent ...	50,973	26.7	13.18	1.35	113	—
Bury	58,182	20.86	16.13	1.51	128	20.78
Cardiff	168,909	31.2	16.7	2.7	145	17.4
Carlisle	46,078	27	18.5	1.7	117	19.4
Croydon	137,917	25.9	13.8	—	133	14.08
Coventry	71,475	28.3	14.0	1.13	113.6	16.8
Crewe	43,237	32.6	14.9	2.05	131	15.2
Derby	116,869	27.9	13.8	1.3	126	16.2
East Ham	100,000	38.05	11.20	1.96	116.9	13.1
Folkestone	31,300	23.2	12.7	1.6	114.1	13.9
Great Yarmouth ...	51,750	27.1	16.8	1.58	143	18.61
Halifax	105,950	20.3	15.2	.85	152.7	17.6
Hanley	62,452	35.1	18.0	3.2	170	19.9
Hastings	65,900	18.2	14.35	0.74	108	14.80
Huddersfield	95,010	24.37	17.73	1.61	138	17.51
Hull	245,448	31.7	16.4	2.13	138	18.6
Leigh	41,000	34.6	14.7	1.5	131.5	19.2
Maidstone	33,691	23.50	14.2	1.12	117	18.2
Merthyr Tydvil ...	71,651	38.88	22.9	2.6	185	24.4
Middlesborough ...	93,364	36.09	20.48	2.4	182	20.7
Oldham	138,091	26.1	19.1	2.0	148	20.9
Plymouth	110,066	26.86	16.99	1.72	155.5	19.10

TABLE III—Continued.

TOWN.	Popula- tion.	Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death rate per 1000 Births.	Average Death rate last 10 years.
Portsmouth	194,960	26·8	16·7	2·2	153	17·2
Reading	73,901	25·66	13·56	1·34	119·7	14·43
South Shields	103,000	36·5	19·6	2·63	149	20·04
St. Helens.....	86,040	37·4	19·9	2·62	167	20·3
Stockport	94,422	27·59	19·37	1·90	182·6	21·7
Sunderland	147,983	36·4	19·69	—	151	21·02
Tottenham.....	107,003	31·74	13·40	2·1	123·6	31·1
Wolverhampton ...	95,736	31·6	16·2	1·71	137	20·15
West Bromwich ...	65,938	34·6	19·8	2·6	162	19·3
West Hartlepool ...	62,627	37·6	15·7	1·78	120	15·6
WIGAN	61,827	37·42	20·25	3·27	158	21·49
York	79,114	28·8	15·6	1·34	116	18·0

TABLE IV.

DEATH RATE FOR WIGAN DURING THE LAST TEN YEARS.

1893.....	24·2	} Average for 10 years, 21·49.
1894.....	18·9	
1895.....	22·52	
1896.....	23·09	
1897.....	20·99	
1898.....	18·88	
1899.....	21·91	
1900.....	21·95	
1901.....	22·30	
1902.....	20·25	

Infantile Mortality.—The number of deaths of children under one year is 366, or 158 per 1,000 births; and of children over 1 year and under 5 years 217, or 3·50 per 1,000 of the population.

Senile Mortality.—The number of deaths in persons of 60 years of age and over is 202, or 3·26 per 1,000 of the population.

With regard to the improvement in the death rate in the country I quote the following :—

The death rate of the five quinquennia from 1851 to 1875 averaged 22·3. Only in one of these five-year periods did the rate for the lustrum fall below 22. On the other hand, during the five similar periods beginning with 1876-80 and ending with 1896-1900, the average of the five death rates had been 19·1. Only once in these five later periods had the rate been above 20, and in each successive quinquennium the rate had been lower

than in its predecessor. These figures were based on calculations embodied in the following table made by Dr. Tatham and were up-to-date.

Table showing the Annual Mortality at all ages per 1,000 persons living during each five-year period of the latter half of the last century and the mortality amongst infants under one year of age per 1,000 children born in each similar period.

Years included.	Deaths at all ages per 1,000 living.	Deaths under 1 year per 1,000 births.
1851-1855	22·7	157
1856-1860	21·8	152
1861-1865	22·6	151
1865-1870	22·4	157
1870-1875	22·0	153
	Average, 22·3	Average, 154
1876-1880	20·8	144
1881-1885	19·4	139
1886-1890	18·9	145
1891-1895	18·7	151
1896-1900	17·7	156
	Average, 19·1	Average, 147

British Medical Journal, Oct. 18, 1902.

CENSUS—WIGAN COUNTY BOROUGH, 1901.

WARD	Separate Families.	HOUSES.				Tenements with less than five rooms.	PERSONS.		Totals.
		In- habited.	In Occu- pation.	Not in Occupation.	Bldg.		Males.	Females.	
No. 1, or St. George Ward ...	959	919	87	17	...	753	2406	2524	4930
No. 2, or Lindsay Ward	924	913	22	12	6	592	2310	2472	4782
No. 3, or St. Catharine Ward	1234	1193	20	5	...	863	3169	3435	6604
No. 4, or St. Patrick Ward...	1586	1567	46	10	3	954	4714	4470	9184
No. 5, or St. Thomas Ward...	939	890	42	4	...	703	2394	2451	4845
No. 6, or Poolstock Ward ...	977	950	18	3	4	523	2424	2613	5037
No. 7, or Victoria Ward	999	949	33	4	4	688	2440	2586	5026
No. 8, or St. Andrew Ward...	1684	1662	29	14	29	501	4658	4622	9280
No. 9, or Swinley Ward	1386	1368	46	41	14	453	3224	4043	7267
No. 10, or All Saints Ward...	709	709	327	28	25	360	1811	1925	3736
Canal Boats .....	...	...	...	...	...	...	60	19	79
Wards not stated .....	...	...	...	...	...	...	...	...	...
Totals.....	11388	11120	670	138	85	6390	29610	31160	60770

Percentage of increase in population, England and Wales
since Census of 1891..... 12·15.

The preceding period, 1881-91..... 11·65.

Increase in Wigan 10·46.

I am also indebted to Mr. Robert Halliwell, Registrar of Births, Deaths, etc., for the following returns of the vaccinations performed in Wigan, and which are from the Vaccination Officers's returns :—

VACCINATION RETURNS, 1901-2.

	January to June, 1902.	The whole of 1901.
Births registered	1143	2245
Successfully vaccinated	868	1743
Insusceptible	3	4
Exemptions, Sec. 2, 1899	9	33
Died unvaccinated	165	358
Postponed by certificate	15	7
Left town and reported to others..	7	13
Remainder cannot trace	25	47
Refusals and not accounted for ...	51	40

Total number of successful vaccinations, all ages, in 1901 1653

„ „ „ „ 1902 2334

Deaths of Infants under 12 months in 1901 463

„ „ „ 1902 368

CAUSES OF DEATH.

THE ZYMOTIC DISEASES.

The Mortality from the principal zymotic diseases, namely, Small Pox, Scarlet Fever, Measles, Whooping Cough, Typhus, Enteric Fever, Puerperal Fever, Diphtheria, and Diarrhoea, gives us a rate of 3·27 per 1,000 of the population, against 4·84 in 1901.

The deaths numbered 203.

The zymotic rate 3·27 is made up as follows :—

DEATHS PER 1,000.

	1902.	1901.
Small Pox	—	—
Scarlet Fever.....	·53	·25
Measles	·32	·69
Whooping Cough	·60	·64
Typhus	—	—
Enteric.....	·22	·19
Diphtheria	·38	·26
Diarrhoea	·92	2·68
Puerperal	·16	·04
Erysipelas	·11	·04

The zymotic rate during each of the four quarters was :—

	1902.	1901.
1st Quarter	1·56	2·00
2nd „	2·98	1·57
3rd „	5·10	11·80
4th „	3·46	3·99

TABLE OF ZYMOTIC DISEASES.

	Notified.	Died.	Case Mortality per cent.
Small Pox	4	—	—
Scarlet Fever.....	557	33	5·9
Enteric Fever.....	76	14	18·4
Diphtheria	60	24	40·0
Measles	291	20	6·87
Whooping Cough	—	37	—
Diarrhoea	—	57	—
Puerperal	11	10	90·9
Erysipelas	65	7	10·7

DEATH RATES, 1902.

Disease.	No. of Deaths.	Rate.
Measles.....	20	·32
Scarlet Fever ...	33	·53
Diphtheria and Croup	24	·38
Whooping Cough	37	·60
Enteric Fever.....	14	·22
Erysipelas	7	·11
Septicæmia	1	·01
Puerperal.....	10	·16
Diarrhœa	57	·92
Phthisis	55	·89
Other Tubercular Diseases	13	·21
Bronchial ".....	158	2·55
Pulmonary ".....	200	3·20
Wasting Diseases of Infants	50	·80
Convulsive " ".....	34	·54
Cancer	31	·49
Rheumatism	7	·11
Diseases of Heart	53	·85
Other Diseases	447	7·23
Total	1251	20·25

SMALL POX.

I regret that Small Pox has again appeared in our County Borough, after an absence of six years and a half. We have in the meantime had a few alarms, but no case occurred till December 26th, 1902, when the Chief Sanitary Inspector (Mr. Sumner) asked me to visit a common lodging-house, where sickness was reported. We found two cases, an adult female and a boy, aged six years (aunt and nephew), both unvaccinated. These were at once removed to the Decker Hospital, and the Public Vaccinator was asked to vaccinate the "contacts," and we quarantined the lodging-house as well as we could. Four persons were not re-vaccinated, for reasons of their own, one had the itch, and went to the Workhouse, another went away, but eventually was re-vaccinated. One was too drunk, and objected, but next day he was discovered to be suffering from the disease, and the father of the woman said he was too old (68 years), would not be done, and he was the only one who took the infection. He had been in close contact nursing his little grandson, and he was taken to the hospital on the ninth day after removal of the first cases. Another girl, aged 14 years, who had

been in contact, was supposed to have the disease in mild form, was removed to the hospital. She had been well vaccinated primarily, and was re-vaccinated, but this did not take. She was in the ward with the others till all chance of the disease appearing had passed, and then discharged. The mother of the boy and a baby, aged eight months were also taken into the hospital, as they had been in contact. The mother had been well vaccinated and re-vaccinated, and the baby vaccinated primarily, which did not take, although a certificate had been signed in an adjoining town of successful vaccination. Both these were vaccinated, the mother's re-vaccination did not take, the baby's vaccination took well, and although these were kept in contact with the others in the ward, no ill-effects followed, and no other case has arisen in this lodging-house. The quarantine lasted 16 days, and we had very little help from the Board of Guardians, whose duty and privilege it is to look after this class, namely, those who are of the nomad population, and those who spend their lives in common lodging-houses. I need not say here that during the whole year I have been very anxious about the import of Small Pox into the town. The epidemic in London, which has cost the ratepayers a rate of 3d. per pound, the prevalence of the disease in Liverpool, and the gradual appearance in the towns in the county, which hemmed us in, and the knowledge that our town is the dumping ground for tramps who pass through constantly, made one uneasy. Although the Chief Sanitary Inspector and the Lodging-House Inspector visited regularly by night and by day, and the lodging-house keepers supplied us with a list of new arrivals, and of their departure, as well as of cases of sickness, I deemed it prudent to address the following letter to the Board of Guardians :—

[COPY.]

“ Corporation of Wigan,

“ Officer of Health's Department,

“ February 24th, 1902.

“ DEAR SIR,—In consequence of the continued prevalence of Small Pox in various parts of the country, I wish to point out what I think desirable in the interests of the inhabitants of the town, namely, that the Guar-

dians should encourage as much as possible, re-vaccination, and I also beg to suggest that (1) the officials and nurses at the Workhouse should be re-vaccinated, especially those who are likely to come in contact with the first case that may be imported into the town; (2) that all tramps coming to the casual wards should be examined by the Medical Officer and re-vaccinated.

"I find a resolution to this effect has been passed by some Boards of Guardians. I see from a report in the "Hospital" of February 22nd, 1902, that seven nurses at the Mile End Infirmary, London, who had not been re-vaccinated, and had to take charge of Small Pox cases, have taken Small Pox.

"It is unnecessary for me to point out the efficacy of vaccination and re-vaccination as a preventative against Small Pox. The strongest reason I can give for the belief is that myself and family have been re-vaccinated recently, and I am pleased that many householders on their own account are applying for this protection.

"It should always be remembered that Small Pox is not a filth disease, neither is it due to deficient sanitation, but attacks all, rich and poor alike, if they are susceptible to the virus, and happen to come in contact with it.

"To stamp it out entirely, we must adopt the only remedy—vaccination and re-vaccination.

"I shall be glad if you will bring this letter before your board at its next meeting.

"I am, Sir,

"Yours very faithfully,

(Signed) WM. BERRY,

"Medical Officer of Health.

"Henry Ackerley, Esq.,

Clerk to the Wigan Board of Guardians."

A resolution was passed to the effect that the Medical Officer to the Workhouse should attend to the matter, and I believe he vaccinated upwards of 300 tramps, until only three appeared on his last visit. I also drew up the following memoranda on Small Pox, which was circulated with other memoranda from the Registrar's Office.

Wigan County Borough.**SMALL POX AND VACCINATION**

Memorandum prepared by the Medical Officer of Health.

MARCH, 1902.

SMALL POX is the most loathsome and infectious of all diseases which affects human beings.

The deaths before the discovery of Vaccination were at least 40 times as many each year as they are now, and now we seldom see anyone pock-marked; this is due to the protective measure afforded by vaccination. Before vaccination many people lost their eyesight through Small Pox. Small Pox, in the unvaccinated, is as severe as it used to be; it is still due to a specific virus or germ. Unvaccinated children under ONE YEAR who contract Small Pox nearly all die. The evidence given before the Royal Commission on Vaccination showed that of the cases admitted into the Homerton Small Pox Hospital more than 43 out of every 100 of unvaccinated persons died of the disease, whereas less than two per cent. (1·6) out of every 100 thoroughly vaccinated persons attacked by the disease died. These statistics covered 10,000 cases.

No one needs fear injury from vaccination at the present time. Calf Lymph is used, and the Public Vaccinator uses antiseptic precautions, as do also private practitioners who are called upon to vaccinate their patients.

A person may have Small Pox twice; that is, the immunity given by one attack gradually wears out, although it is seldom one sees a second attack of Small Pox.

Vaccination likewise wears out, and the protection is not so great after ten years as it is immediately after the operation has been successfully performed, therefore re-vaccination should be performed at stated intervals. Between 10 and 15 years the first re-vaccination should be performed. Re-vaccination is desirable whenever Small Pox is prevalent in a district. Isolation of Small Pox cases, when they occur, is a great help in preventing its spread, and disinfection of the infected premises, bedding, clothing, etc., is also necessary, but if vaccination and re-vaccination be efficiently performed Small Pox can be stamped out, as this has been proved so far as Germany is concerned, for it is almost stamped out in that country. Anyone who has seen a bad case of Small Pox will never hesitate to take every possible precaution to prevent being infected.

In the epidemics of Small Pox in Dewsbury (1892), Gloucester (1896), Middlesbrough (1898), the disease passed over the vaccinated children and seized on the unvaccinated children in the same house. Such facts show that the decline in Small Pox is due to vaccination, and not to improved sanitation.

In the Gloucester epidemic (1896) only 26 children under ten years of age who had been vaccinated took Small Pox, and, of these, only one died; of unvaccinated children, 680 took the disease, of whom 279 died.

The deaths amongst the unvaccinated are about 45 per cent. In a general way we may say that half the people die who take Small Pox if they have not been vaccinated.

Sir Charles Dilke stated in 1883 that the average strength of the permanent postal service in London was 10,504 in 1870-80, and yet during the same period, including the great epidemic, there were only 10 slight cases, and not a single death, from Small Pox. In 1891-94 the employés of the General Post Office were over 55,000, yet there were only 17 cases of Small Pox, and one death, though postmen are exposed to the dangers of infection owing to the nature of their occupation.

In a pamphlet on “Facts about Small Pox and Vaccination,” issued by the Council of the British Medical Association, January, 19th, 1898, I find the following reasons given :—

- I. The mortality from Small Pox is much less now than in pre-vaccination times.
- II. The greatest diminution in the Small Pox mortality is found in the early ages of life in which there is most vaccination.
- III. In countries where there is much vaccination and re-vaccination relatively to the population there is little Small Pox.
- IV. In classes amongst which there is much vaccination and re-vaccination there is little Small Pox.
- V. In places where Small Pox prevails it attacks a much greater proportion of the unvaccinated than of the vaccinated, especially where the vaccinations are comparatively recent.
- VI. In homes invaded by Small Pox in the course of an outbreak not nearly so many of the vaccinated inmates are attacked as the unvaccinated in proportion to their numbers.
- VII. The fatality rate amongst persons attacked by Small Pox is much greater, age for age, among the unvaccinated than amongst vaccinated.
- VIII. It cannot be truthfully alleged that independently of vaccination Small Pox is a milder disease now than in former centuries.
- IX. The degree of protection conferred by vaccination corresponds to the thoroughness with which the operation has been performed, three or four marks being much better than one or two, and a large mark much better than a small one.

X. Though isolation of Small Pox cases in hospitals is a useful auxiliary to vaccination, it is no substitute for it.

All persons wishing to be vaccinated or re-vaccinated can have this done at their own houses free of charge on applying to the Public Vaccinator. In Wigan Dr. Bradbury is the appointed officer.

From this date we went on with one or two false alarms till the day I have mentioned. Finding that we had the spark in our midst, I thought everything should be done to prevent further spread, and used all the powers I had, and again addressed another letter to the Clerk to the Board of Guardians, which ran as follows:

“ Corporation of Wigan,
 “ Officer of Health’s Department,
 “ December 31st, 1902.

“ DEAR SIR,—In consequence of an outbreak of Small Pox in one of the lodging-houses in this Borough, and the further prevalence of this disease in the towns surrounding Wigan, I beg to call the attention of your Board to the necessity of vaccination and re-vaccination, as the only true prophylactic measure known to prevent this disease. I wish to suggest that it would be well to re-vaccinate those officers of the Workhouse who have to deal with the nomad class, which is answerable for its introduction into this town. It would be well also that the inmates of the Workhouse should have an opportunity of being vaccinated.

“ I do not think it necessary for the present, at all events, that the Guardians should make special arrangements for the purposes of re-vaccination, but I should like it made known that the Public Vaccinator is willing to re-vaccinate any person who applies to have the operation performed. I am informed that recently the tramp wards have not provided ample accommodation for the numbers who have sought a night’s lodging. If this is so, it is very desirable that the Medical Officer of the Workhouse should have the opportunity of examining and re-vaccinating them before sending them away to

a common lodging-house. In fact, it would be well to compel all tramps, who have not recently been vaccinated, to submit to the operation before giving them a night's lodging.

“Yours faithfully,

“WM. BERRY,

“Medical Officer of Health.

“Hy. Ackerley, Esq.,
Clerk to the Board of Guardians.”

I had hoped to get the assistance of the body who is charged with the carrying out of the Vaccination Acts, but was doomed to disappointment. As a public servant, I have no right to complain. I did what I thought was right, and I recollected the fate of other towns. Nelson, a small town, had 80 cases, at a cost of £5,000, not including the land on which the temporary hospital was erected, and our own neighbouring towns were having case after case, I could only form the opinion that the carrying out of laws which were for the prevention of disease should be under the sole control of the Sanitary Committee. I do not wish to thrust my own opinion on to my Committee or the public, therefore I have made a selection of literature on the subject, which has been written during the past year, whilst Small Pox was prevalent, particularly in London. I also quote a paragraph from a paper by Dr. McVail, who is an authority on vaccination, in a recent article in the “British Medical Journal.”

In the “Daily Graphic,” on January 24th, 1902, on “The Small Pox Epidemic of 1901,” the following remarks were made :—

“Of 2,198 persons employed at the Small Pox Hospitals between 1884 and 1900 inclusive, only 17 persons contracted Small Pox, of whom 13 were not re-vaccinated until after they had joined the ship, and four were workmen, who had escaped medical observation.”

And again :—

“ Not one of the staff of the hospital ships has ever died of Small Pox, not one has ever suffered from the disease for the past eight years.”

The “ Lancet ” of February 8th, 1902, page 387, has the following article on the same subject :—

VACCINATION AND SMALL POX.

The Registrar-General’s return for the week ending January 25th contains a table and explanatory remarks, which appear to us so important at the present time as to deserve insertion in our columns. We cannot doubt that this information will be welcomed by those amongst the anti-vaccinationists (if there be any) who still desire to know the truth in such matters. In the following table the deaths from Small Pox which have been registered from the beginning of the present epidemic down to January 11th, 1902, are classified in minuter detail as regards vaccination than was possible at the date of issue of the several weekly returns :—

	All ages.	Ages at death.							
		Under one year.	1-5.	5-10.	10-15.	15-20.	20-40.	40-60.	60 and upwards.
Vaccinated in infancy only ...	130	—	—	—	1	3	76	45	5
Re-vaccinated more than 10 years ago	3	—	—	—	—	—	1	1	1
Re-vaccinated less than 10 years ago	—	—	—	—	—	—	—	—	—
Vaccinated, only after infection by small pox.....	14	7	2	—	—	1	4	—	—
Unvaccinated	116	10	35	14	16	15	19	6	1
No evidence of vaccination ...	9	—	—	—	1	—	5	3	—
Stated to have been vaccinated; scars, if any, obscured	28	—	—	3	1	—	12	10	2
Total	300	17	37	17	19	19	117	65	9

The table shows that out of those children and young persons under 20 years in the population of London who were not protected by vaccination, 100 have recently

died from Small Pox; whilst only four deaths from that disease have occurred among those of the same ages who were ascertained to have been vaccinated in infancy. There are also five cases in which the evidence was insufficient to warrant a definite statement as to vaccination. If the extreme course be taken of counting these five cases with the vaccinated, the figures will show at least 100 deaths from Small Pox among the unvaccinated section of the population under 20 years of age, and at most nine deaths among the vaccinated section at the same ages. At ages over 20 years there were 30 deaths of persons who were admittedly unvaccinated, 126 of persons who had been vaccinated in infancy, but not re-vaccinated, and three of persons who had been re-vaccinated. In all these three cases re-vaccination had taken place more than 10 years ago, and in two of them it is uncertain whether the operation was successful. There are also 32 cases at these ages in which the facts as to vaccination could not be definitely ascertained. In 24 of these cases statements were made to the effect that the deceased had been re-vaccinated. But in none of them was it claimed that the deceased had been re-vaccinated. Medical practitioners would greatly facilitate the classification of deaths from Small Pox in the Registrar-General's office, if they would add to their certificate (*a*) the duration of the disease (*i.e.*, the time between attack and death), and (*b*) the date of vaccination when this is known.

In the "British Medical Journal," of July 12th, 1902, page 148, we have the following:—

A CONVERTED ANTI-VACCINIST.

Dr. Townsend Barker, of Fulham, sends us an interesting letter, which he has received from a former opponent of vaccination, who has now seen the errors of his ways.

The writer of the letter is Mr. C. H. Woodhouse, Superintendent of the Battersea Borough Council's Disinfecting Station. As might be expected, the cause of his change of mind is that his present employment has given him some actual knowledge of vaccination and

Small Pox. He says:—"The past eleven years that I have been working amongst infectious disease is the reason of my change of opinion. I have been enabled to see for myself the result of practical experience in vaccination." It is evident that his having previously been an anti-vaccinist was due in great part to a supposition that the operation itself is very dangerous. On this point, he writes:—"I am certain that the risk is so small in comparison with its blessing that, personally, I had sooner be vaccinated every month than fall a victim to that horrible disease known as Small Pox, which, as you are aware, it is my business to be amongst every day recently." He speaks thus regarding one of about 26 fatal cases of Small Pox, which he has met with:—"I trust it may never again be my lot to see the horrible sight that one of these cases presented. It was that of an unvaccinated child, fourteen months old, whose mother had been suffering, unknown to the sanitary authorities, with this foul disease, and from whom the child had taken it. It was so far gone to be beyond recognition, the pustules covering the body so that it was impossible to get a pin head between them. I would have liked to have been able to place that body in, say, an anti-vaccinators' meeting, and appeal to them if that was the state they would wish our population to become, sooner than take the slight risk, if risk there be, in a properly performed vaccination." To some minds a few examples within their personal knowledge appeal far more strongly than masses of statistics.

Mr. Woodhouse records one such case:—"I was in a house of an anti-vaccinator, where variola had broken out. The Medical Officer appealed to him to have the children vaccinated, but "No," he said, it was an insult to his intelligence to ask him. A second case occurred; he could not part with his children. He yielded; had the two young children done, leaving a third unvaccinated; this one was taken. He was then convinced, nay converted. The two vaccinated escaped. He himself and his wife were done, and no further cases occurred.

In another case Small Pox broke out in one house occupied by two families. "One family consisted of



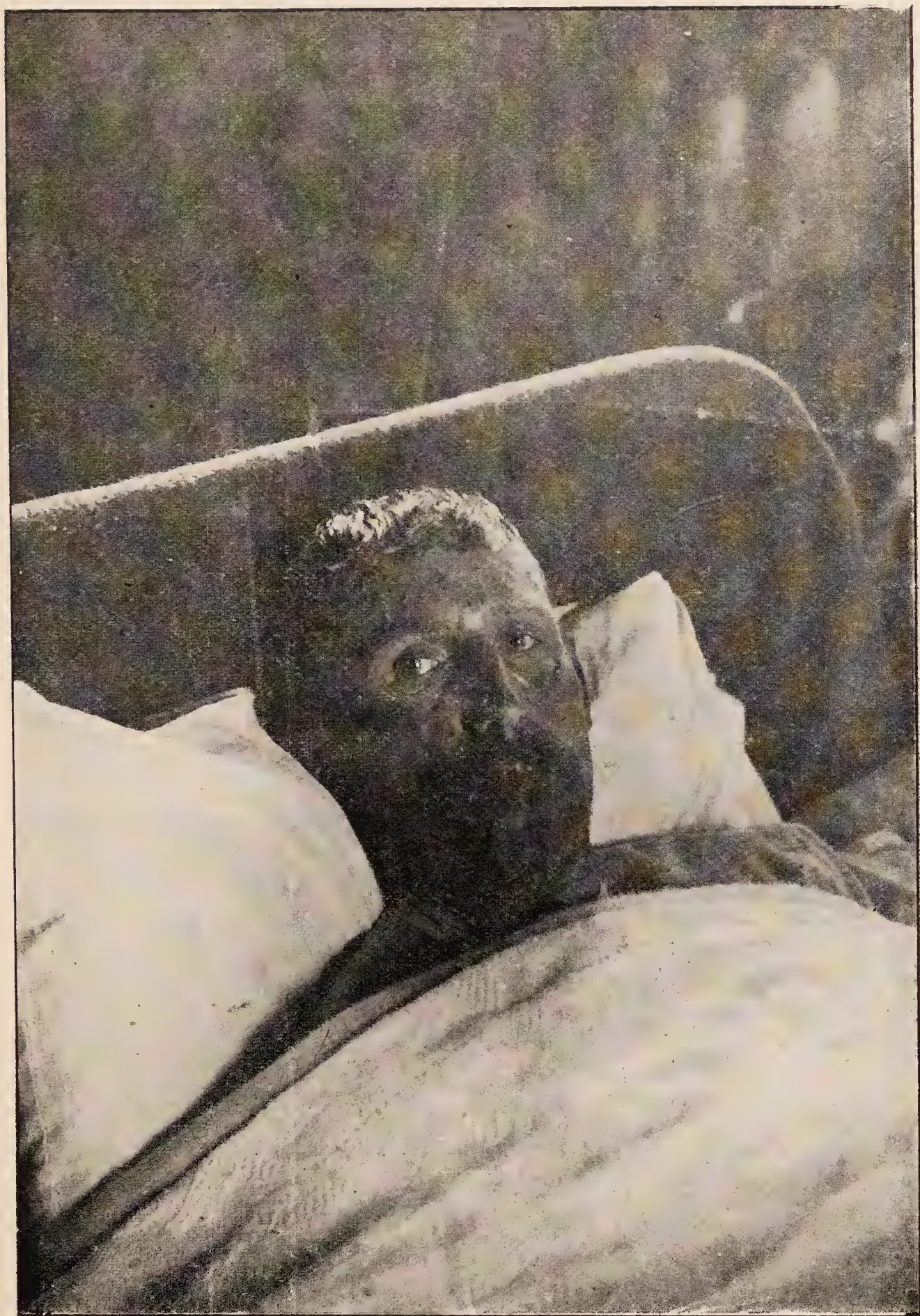
Aged 28 years, Vaccinated in infancy.



Aged 19 years, Vaccinated in infancy.



Aged 12 years, Unvaccinated.



Aged 35 years, Vaccinated in infancy.



Aged 25 years, Unvaccinated.

man, wife, and child, the man having recently been engaged by a sanitary authority, who insisted upon the vaccination of himself, wife, and child," and "these were the only ones who escaped."

The staff, under Mr. Woodhouse's official charge, consists of ten men. Five of these, he says, were anti-vaccinators, and each of the five had been smitten with Small Pox. He adds, that all of them have returned to their work of one mind regarding vaccination, and that now there are in his district no stronger advocates of it than those men.

All this is an illustration of what has often been pointed out in the past—that anti-vaccination lives and thrives on ignorance of facts, and that the most effective schoolmaster in this matter is Small Pox itself, though the education which it gives is terribly expensive. But surely it may be hoped that men like Woodhouse and his staff may impress the teaching of their own experience on many others, so that it may not be necessary for every convert either to see Small Pox, as the Battersea officer has done, or to experience it in his person or his family, as did those whose cases are cited in the letter from which we have quoted.

With regard to re-vaccination, the following may be quoted :—

Dr. John C. McVail, in an article on “The Vaccination Acts,” in writing on “A Re-vaccination Act” (see “British Medical Journal,” of January 10th, 1903, p. 101), says :—

“Now, in Scotland, it is well-known that there is much less opposition to vaccination than in England, and I doubt whether a better result of a voluntary system can be looked for anywhere in England than was obtained in the city of Glasgow. As a protection to those who did accept re-vaccination, the measure was an absolute success; not a single one of the 400,000 took Small Pox. Among those who refused, however, there were between April, 1900, and May, 1902, no fewer than 2,255 cases of Small Pox, with their customary toll of death, and disfigurement, and anxiety and loss of work, besides all the costs of destruction of infected articles, disinfection of houses, maintenance and extension of hospital accommodation, and so forth. Compare such an experience now with that of Germany. Since 1874 there has been compulsory re-vaccination of all school children in the twelfth year of life, as well as primary vaccination of children under two years. The result, as stated in the tract issued by the Council of the British Medical Association, is that Small Pox epidemics are utterly abolished from Germany, and only a few scattered deaths occur each year, mostly on the frontiers. Here are the Small Pox deaths per million of the population in Prussia, just prior to the law of 1874, in the nine years, 1866 to 1874—620, 472, 188, 124, 175, 2,432, 2,624, 357, 95. Here, on the other hand, are the figures for the twenty-four years, 1875 to 1898—36, 31, 3, 7, 13, 26, 36, 36, 20, 14, 14, 5, 5, 3, 5, 1, 1, 3, 4, 3·0, 8·0, 2·0, 2·0, 4. For the German Empire, as a whole, the statistics are given from 1886 to 1899 inclusive, and in this population of 52,000,000, we get nearly to the vanishing point of Small Pox. The rates per million are as follows :—4·3, 5·2, 3·4, 1·1, 2·1, 0·2, 1·3, 1·0, 1·7, 0·5, 0·2, 0·1, 0·3, and 0·5. The neighbouring country of Austria, on the other hand, which is without compulsory vaccination, gives the following rates for the

years 1887 to 1896 :—440, 640, 520, 250, 290, 260, 250, 110, 47, 35. England, with obligatory vaccination of infants not well carried out, comes between these two, with the following rates, in 1887 to 1898 :—18, 36, 0·8, 0·6, 1·7, 14·7, 49·3, 27·3, 7·3, 17·6, 0·8, and 8·1. It should be noted that these are favourable years for England, and that since 1898 we have had the London epidemic. In face of such facts, what can be said against the introduction in England of a law of obligatory re-vaccination of children before leaving school? German experience answers in advance one possible argument. A single re-vaccination cannot, under all circumstances, be regarded as absolute protection of the individual through all the rest of his life. Where, however, in any town, and especially in any whole country, one re-vaccination is added to another, until nearly all have been overtaken, the protection increases at a high rate of compound interest. In addition to the individual having the benefit of his own inoculation with vaccine lymph, he has also the benefit of being surrounded by a protected community, or, as it would be under a Vaccination Act, by a protected nation. Small Pox would then have much more difficulty than at present in obtaining a footing in the country, and would be much less likely than at present to search out those individuals here and there whose susceptibility had in greater or less degree returned, or those others who had been the subjects of exemption certificates. When occasionally Small Pox would succeed in finding a victim, it would be much easier than at present to confine the infection within narrow limits. The proportion of susceptible persons among immediate “contacts” would be small, and the surrounding community would, to a very large extent, be immune from risk of attack. For these reasons then, though a single re-vaccination at about the age of twelve years would not invariably give life-long protection, yet a re-vaccinated nation would be living under a condition of national protection.”

The following letter appeared in the “British Medical Journal,” of January 17th, 1903, p. 172, and this is not a unique experience.

SMALL POX AND RE-VACCINATION.

“SIR,—The following facts relating to the connection between Small Pox and re-vaccination may be of interest. About three weeks ago I was called in the evening to one of our common lodging-houses here, which by the way, are anything but model, to see a supposed case of rheumatic fever. It was a case of variola. I put some policemen at the door to prevent egress or ingress, and went for the Medical Officer of Health. I came back, and re-vaccinated all in the house, with four exceptions, they refusing. Of those re-vaccinated, not one contracted the disease! All four who refused vaccination were early infected, and two of them died.

“I am, etc.,

“T. H. DONOVAN.

“Rotherham, January 12th.”

Cities and towns in which Small Pox was present during the year 1902:—

(See Table.)

TABLE OF TOWNS IN WHICH SMALL POX HAS OCCURRED DURING 1902.

[illegible]

SCARLET FEVER.

Number of Notifications	557
Number of Deaths	33
Death-rate per 1,000 of population	·53

The number of notifications of this disease is for 1902, 557, against 264 in 1901; and 33 deaths, against 16 in 1901.

	Notifications	Removed to Sanatorium.	Deaths.
January	45	21	1
February	62	13	4
March	49	24	5
April.....	47	22	4
May	28	24	—
June	22	26	2
July	36	22	1
August.....	53	21	6
September	48	26	2
October	62	18	3
November	54	26	2
December	51	13	3
	557	246	33

The percentage of removals to Sanatorium has been 44·16, against 59·46 in 1901, and 33·57 in 1900.

We have had 7 return cases during the year, and although such cases are to be deplored, they are unavoidable at times; the utmost care has been taken before discharging the convalescent patients. The difficulty now is not in persuading the parents to allow their children to go into the Sanatorium, but to keep them out; and if compelled to leave them at home for want of room it is much more difficult to get them to isolate with efficiency.

The new scarlet block was opened with the observation block on the 29th December, and the new scarlet block was named the “Gee” block, in honour of the Chairman of the Sub-Committee, Alderman J. T. Gee, J.P.

AGE INCIDENCES OF SCARLET FEVER.

	MONTHS.				YEARS.												Total.	
	0-3	3-6	6-9	9-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	20 & over		
Ages	0	1	1	2	21	37	55	64	76	65	70	43	24	65	15	18	557	
Total Number of Notifications.....	4				177				278				98					
Under 1 year																		
From 1 to 5 years																		
" 5 to 10 years																		
Over 10 years																		
Sickness rate per 1,000 of the Popu- lation at each age.....	0.1	0.1	0.1	0.3	.33	.59	.88	1.02	1.21	1.04	1.12	.68	.38	1.02	.24	.26	9.00	
Deaths at different ages.....	0	0	1	1	6	7	4	7	4	0	1	0	1	1	0	0	33	
Percentage Mortality.....	0	0	100.00	50.00	28.05	18.9	7.2	10.9	5.2	0	1.4	0	0.1	1.5	0	0		
All under 1 year	2																	

BOROUGH OF WIGAN.

Notification of disease adopted March, 1889. Hospital
opened 1891.

SCARLET FEVER.

Year.	Estim. Popula- tion.	Cases Noti- fied.	Under Five Years.	Deaths.	Cases in Hosptl.	Attacks per 1,000	Deaths per 1,000.	Percent per Annum.
1889	53916	182	76	23	15	3·37	·42	8·24
1890	54440	235	163	29	83	4·31	·42	35·31
1891	55084	278	198	28	150	6·86	·50	39·68
1892	56040	218	117	10	79	3·89	·17	36·69
1893	57483	336	211	45	183	5·84	·78	54·49
1894	58529	361	215	15	200	6·16	·25	55·40
1895	59469	157	84	5	92	2·64	·08	58·59
1896	60235	151	83	8	43	2·50	·13	28·47
1897	61202	191	84	10	95	3·12	·16	49·74
1898	61697	420	220	22	189	6·80	·35	45·00
1899	62630	245	129	19	142	3·91	·30	57·95
1900	63400	485	159	21	211	7·63	·33	42·59
1901	60923	264	92	16	155	4·00	·26	58·70
1902	61827	557	190	33	246	9·00	·53	44·16

MEASLES.

Measles, I am pleased to say, decreased very considerably at the end of the year 1901, in fact, the epidemic had expended itself, so that we were comparatively free after December that year. There was no month, however, in which a notification was not received, so that the disease was never entirely absent. The voluntary notification keeps us in touch with the cases.

The total number of cases notified for 1902 was 291, against 1,419 cases in 1901. Of these 209 were notified by medical men, and 82, the remainder, discovered by the Inspectors when enquiring into the notified cases.

The deaths numbered 20, or a rate of $\cdot 32$ per 1,000 of the population, or a percentage mortality of 6·87, against 3·03 in my last report, and 3·76 per cent. in 1901. This shows that in epidemic cycles the percentage deaths are much less owing to the greater number of mild cases.

The following is a list of voluntary notifications and other cases discovered in consequence :—

VOLUNTARY NOTIFICATION OF MEASLES IN 1902.

	Notifications.	Deaths.
January	18	0
February	7	2
March	11	0
April	29	2
May	53	3
June	14	5
July	29	1
August	11	0
September	37	0
October	36	5
November	15	1
December	31	1
	291	20

In May we had a great number of cases in St. Thomas Ward, and the mischief appeared to be spreading rapidly, so we had the schools closed by order of the Sanitary Authority for a period of 17 days. We had at once a decline in the number of cases, as will be seen by the notification list.

It will be seen from the accompanying chart that Measles appears in epidemic waves or cycles every two or three years.

WHOOPING COUGH.

The number of deaths from Whooping Cough is 34, against 40 in 1901, and 28 in 1900.

The number is shown in the following table :—

	Deaths in 1902.	Deaths in 1901.
January	1	6
February	0	5
March	0	9
April	2	1
May	2	6
June	14	2
July	1	3
August	4	1
September	6	3
October.....	2	4
November	3	0
December.....	2	0
	37	40

Whooping Cough also seems to appear in epidemic waves, and it is very difficult to get parents to realise how infectious the disease is. Medical men are seldom called in till complications appear.

TYPHUS FEVER.

I am pleased to say we have had no notifications of this disease during the year.

ENTERIC FEVER.

Number of Notifications.....	76
Number of Deaths	14
Mortality per 1,000 of population	22
Removed to the Sanatorium	39

We have for 1902 76 notifications, against 71 in 1901, and 104 in 1900. A few of the cases removed to the Sanatorium turned out to be cases of other febrile diseases.

The number of deaths, 14, or 18·42 per cent. of the cases notified, against a rate of 16·90 per cent. in 1901, and 18·26 per cent. in 1900.

The cases notified were as follows :—

	Notificati'ns.	Removed to Sanatorium.	Deaths, 1902.
January	11	4	0
February.....	5	4	2
March	7	5	0
April	3	2	0
May	7	5	1
June	5	0	0
July	10	6	2
August	5	2	4
September	4	2	0
October	12	6	2
November	3	1	2
December	4	2	1
	76	39	14

In the Thompson Yates Laboratory, Liverpool, we have had four specimens of blood examined, with the following results :—

Positive re-action	—
Negative	4

I may say that several of the cases were not notified as Enteric Fever.

It is not always easy to detect the origin of this disease, several cases have been contracted outside our district. No epidemic form appeared, and our milk and water supply could not be blamed.

With regard to the etiology of the disease, the following extract from "Public Health" is important:

THE ETIOLOGY OF TYPHOID FEVER.

By THOMAS CHERRY, M.D., M.S., Melb.,

Lecturer in Bacteriology, University of Melbourne.

See "Public Health Journal," page 632, August, 1902.

1. Many mild cases of fever are slight attacks of typhoid, and may serve to distribute the contagion.
2. Typhoid fever itself may be a composite disease, or a series of diseases caused by closely allied organisms.
3. While from the Bacteriological evidence the *de novo* origin of the disease is not disproved, still a general survey of all the known facts enables us to explain most cases without having recourse to this hypothesis.

4. Typhoid fever at once disappears from a community with the introduction of a proper system for the disposal of excrement and household refuse. In towns this can only be done by a properly constructed water-carriage system of sewerage.

5. The disease is spread chiefly by the contamination of water, milk, and articles of food. In hot countries, at least, flies and dust have a considerable share in bringing about this contamination.

6. The length of time during which the bacilli can exist outside the body is unknown. There is evidence to show that the contamination hangs about old cesspits and contaminated soil for several years.

Dr. Snell in his report on Typhoid gives the following age incidence of the disease:—

The age incidence of Typhoid fever is given by Dr. Snell as under:—

Ages.	Cases.
1—4	4
5—9	10
10—14	18
15—19	17
20—24	6
25—29	4
Over 30.....	4
	—
	<u>63</u>

Our own cases for 1902 have the following age incidence:—

1—4	2
5—9	12
10—14	13
15—19	9
20—24	9
25—29	14
Over 30	17
	—
	<u>76</u>

The following is a list of the streets in which Enteric fever occurred.

Street List in which Enteric fever has occurred :--

	Cases.		Cases.
Adelaide Street	2	Jackson's Row, Wigan Lane	1
Avondale Road	1	King Street.....	1
Arundel Street	1	Lindsay Street	1
Baldwin Street	2	Lime Street	2
Beech Hill Hall	1	Linney Street.....	1
Cartwright's Yard, Standish- gate	1	Lower Morris Street.....	1
Chadwick Street	1	Mason Street	1
Chapel Lane	2	Moss Street.....	1
Cambridge Street	1	Marsden Court, Hallgate.....	1
Cross Street	2	Northumberland Street	1
Church Street	1	Newark Street	1
Chadwick's Square, Gidlow Lane	2	Orchard Street	1
Coop Street.....	1	Portland Street	1
Cecil Street.....	1	Pool Street	1
Darlington Street East.....	1	Pottery Road	2
Every Street	1	Park Terrace	1
Essex Street	1	Park Road	2
First Avenue	1	Rylands Street	2
Greenough Street	1	School Street	1
Gidlow Lane	2	Scholes.....	1
Hopwood Street.....	1	Swift's Yard, Adelaide Street	1
Hope Street	1	Stopforth Street	2
Hardybutts	2	Swinley Lane.....	1
Holland Street	1	Shelmerdine Street	1
Howard Street	1	Thompson Street	1
Holt Street	1	Whelley	3
Hodges Street	1	Windermere Street	1
Infirmary.....	2	Wallgate	1
James Street	1	Woodhouse Lane	3
		Wrightington Street.....	1

DIARRHŒA.

Number of deaths 57

Mortality per 1,000 of population..... ·92

We have, therefore, a great diminution in the number of deaths from Diarrhœa. In 1901 we had 166 deaths, or 2·68 to 1,000 of the population.

	Deaths.	0-1 year.	1-5 years.	Over 5 years.
January	1	1	—	—
February.....	—	—	—	—
March	2	1	1	—
April	1	1	—	—
May	2	1	—	1
Jane.....	2	2	—	—
July	4	3	1	—
August	9	7	2	—
September	24	21	3	—
October	11	7	4	—
November	—	—	—	—
December	1	—	—	1
	57	44	11	2

The cool summer and autumn no doubt contributed to the few number of deaths compared to other years. All over the country the Diarrhœa death-rate has been lower than in previous years. You will notice by the table that the larger number of deaths are in children under one year of age.

DIPHTHERIA.

Number of Notifications	60
Number of deaths, including Croup.....	24
Mortality per 1,000 of population	·38

We have had an increase in the number of cases notified, namely, 60 against 49 in 1901, and the mortality against these cases is also increased ·38 per 1,000 of population, against ·26. The following table shows the number of cases notified and the number of deaths:—

	Notified.	Deaths.
January	6	1
February	6	3
March	3	1
April.....	1	—
May	5	2
June	4	—
July	5	1
August	7	4
September	7	2
October.....	6	—
November	6	1
December	4	2
	60	17

The following is the result of the examinations bacteriologically made at the Thompson Yates Laboratory:—

Number of cases, 8
Streptococcus present, 2; Bacillus absent, 6.

ERYSIPELAS.

Number notified	65
Number of deaths	7
Mortality per 1,000 of population	·11

We have an increase in the number of deaths from Erysipelas, 7 against 3, showing an increase in the mortality rate.

All we could do with these notifications was to have enquiries made as to the cause, and also see to the sanitary conditions of the surroundings.

PUERPERAL FEVER.

Number of cases notified.....	11
Number of deaths.....	10
Mortality per 1,000 of population.....	·16

We have an increase in the number of cases notified, and an increase in the death-rate. None of the cases appear to have been communicated one to another, and everything was done to prevent such an occurrence.

MUMPS.

Mumps which is an infectious disease, but not scheduled as a "dangerous infectious disease," gave us some trouble in Poolstock Ward. I considered it desirable to close Poolstock Schools in consequence, and an order was made by the Sanitary Committee on May 10th, for closure from May 12th to May 26th. This had the desired effect, for the disease disappeared.

MEMORANDUM ON INFECTIOUS DISEASES.

I drew up a Memorandum in reference to Infectious Diseases, especially for School Teachers, these have been sent to the various Managers of Schools and Teachers, and Mr. Halliwell, the Registrar, also distributes the same, with other memoranda, from his office.

INFECTIOUS DISEASES.

A Guide for School Teachers and Parents.

CLASS I.

Infectious Diseases which are compulsorily notifiable to the Medical Officer of Health :—

- 1.—SMALL POX.
- 2.—SCARLET FEVER.
- 3.—TYPHUS.

4.—ENTERIC OR TYPHOID FEVER.

5.—DIPHTHERIA.

6.—ERYSIPELAS.

N.B.—*All Children from the Infected House*, except in the last mentioned (Erysipelas), should be excluded from School until permission is given by the Sanitary Authority for the attendance.

CLASS II.

Other Infectious Diseases which are not notifiable to the Medical Officer of Health :—

1.—MEASLES, voluntary notification of first case.

2.—GERMAN MEASLES.

3.—MUMPS.

4.—CHICKEN POX.

5.—WHOOPING COUGH.

6.—INFLUENZA.

N.B.—*All Children from the Infected House* should be excluded from School until certified as free from disease.

CLASS III.

Diseases which require the exclusion only of the child actually suffering from the Disease :—

1.—ERYSIPELAS (see Class 1).

2.—OPHTHALMIA (Eye Disease).

3.—RINGWORM.

4.—SCABIES OR ITCH.

5.—SKIN ERUPTIONS OF THE HEAD.

PRECAUTIONS.

Slates, books, and other things used by a suspected child should be put away and cleansed. Class-rooms should be disinfected when any of the diseases in Class I. and Class II. have been prevalent, and

there should be free admission of fresh air into them. In Class III. lavatory basins, slates, etc., should be cleansed with disinfectants. Towels should be boiled. Sponges and rags burned. Children should not be allowed to exchange caps or jackets with each other in the play ground.

N.B.—The Sanitary Authority can only certify for the diseases mentioned in Class I. and also Measles, which, in Wigan, happens at present to be voluntarily notifiable. Absence from other causes must be certified by ordinary medical attendant.

CLASS I.

Infectious Diseases which are compulsory notifiable to the Medical Officer of Health.

1. Small Pox.

SIGNS.—Shivering at the commencement, sickness, often vomiting, feverishness, *headache*, thirst, *pain in the back*, especially in the loins. On the third day shotty pimples about the size of a pin's head and hard to the touch appear on the face, chest, and wrists; in two more days these increase in size and appear in small blisters, and in two more days these become opaque and yellowish in colour, and the clear fluid is converted into matter, and this forms the *pock*, which is circular, and on the eighth day begins to dry and forms a scab.

INFECTION is conveyed by the breath, the discharges, and from the scabs when they separate from the skin.

PERIOD OF EXCLUSION (of sufferer) from work or school should be until certificate of freedom of disease from the medical attendant.

PERIOD OF EXCLUSION (of other inmates of the house) should be at least 15 days.

N.B.—All children from infected houses should be excluded from school, and re-vaccination of all the inmates advised.

2. *Scarlet Fever.*

SIGNS.—Chilliness, vomiting, or sickness, sore throat, hot dry skin, and headache. On the second day of illness a bright red rash on the face, arms, and neck and chest, and often all over the body. About the fourth day the fever declines, and the rash begins to fade, and near the end of the second week *peeling* of the skin generally, sometimes earlier if the rash has been intense. The peeling is generally in flakes, and it usually requires four weeks from the commencement of the shedding before it is complete, or six weeks from the outset of the disease. The tongue is furred at first, but when the rash is well out it has a *strawberry* appearance. Later stages of the diseases we have enlarged glands of the neck, abscesses in the neck, running from the ears, and sometimes kidney mischief.

INFECTION.—The infection is conveyed by the breath, discharges from the nose and mouth or throat, and particles of the skin.

PERIOD OF EXCLUSION (of sufferer) until certificate is received from the medical attendant.

PERIOD OF EXCLUSION (other inmates of house) two weeks after removal of patient to complete isolation.

3. *Typhus.*

SIGNS.—Begins with a chill or feeling of being cold, shivering, and then burning hot, headache, and lassitude, sometimes vomiting at the commencement; about the *fourth* day a rash like mulberry spots appears on the chest and arms, sometimes on the legs and abdomen; patient gets delirious about the end of the first week.

INFECTION.—The infection is conveyed by the breath, and the exhalations of the skin and the clothes.

PERIOD OF EXCLUSION (of sufferer until patient is convalescent; should be isolated as soon as possible.

PERIOD OF EXCLUSION (of other inmates of house) 10 to 14 days. Free ventilation should be employed in the infected home.

4. Enteric or Typhoid Fever.

SIGNS.—Commences with headache and lassitude and generally diarrhœa, sometimes vomiting, and a feeling of chilliness. About 10 days after commencement *rose* coloured spots appear generally over the stomach and abdomen. The diarrhœa is often persistent, and in later stages blood may be passed.

INFECTION.—The infection is conveyed by the excreta contaminating the food or drink; contaminated milk or water are a common cause of epidemics.

PERIOD OF EXCLUSION (of sufferer) until the patient is thoroughly convalescent.

PERIOD OF EXCLUSION (of others in the house) only till isolation is accomplished.

5. Diphtheria or Membranous Croup.

SIGNS.—*Sore throat* with a feeling of weakness and depression, white or yellowish white patches, or one patch on the back and sides of the throat, some difficulty in swallowing, and in severe cases some swelling of the glands under the angle of the jaw and the side of the neck.

INFECTION.—Infection is conveyed by the breath and all discharges from the nose and mouth.

PERIOD OF EXCLUSION (of sufferer) until convalescent and certified by medical man.

PERIOD OF EXCLUSION (of other inmates in the house) 10 to 14 days.

6. Erysipelas.

SIGNS.—Feverish cold, followed by a red, tender spot on or about the nose, ear, mouth, or scalp; sometimes on leg or arm, or around a wound or cut. The part gets painful, red, and swollen. Later the skin cracks and falls off in flakes.

INFECTION.—The infection is carried in the air and by the flakes.

PERIOD OF EXCLUSION (of sufferer) till convalescent.

PERIOD OF EXCLUSION (of other inmates) not necessary to exclude them from school.

CLASS II.

Other Infectious Diseases which are not notifiable to the Medical Officer of Health.

1. Measles.

SIGNS.—Begins with sneezing, running nose and eyes, with short cough and feverishness; all the symptoms of a cold in the head; a rash appears about the third or fourth day on the face and forehead first, then on the chest and limbs, it is pink in colour and appears like red blotches; the patient is generally heavy and drowsy. The rash gradually fades away after the third day, and sometimes branny scales or scurf falls from the skin.

INFECTION.—The infection is conveyed by the breath, by the discharges from the nose and mouth, and probably from particles of skin.

PERIOD OF EXCLUSION (of sufferer) 4 weeks, and longer if cough remains.

PERIOD OF EXCLUSION (of other inmates), about 16 days.

2. German Measles.

SIGNS.—Sore throat and symptoms of a slight cold. Rash like that of Scarlet Fever appears early, and is seen on the face, and some swelling of the glands of the neck.

INFECTION is conveyed through the breath and discharges from the mouth and nose.

PERIOD OF EXCLUSION (of sufferer) not less than 3 weeks.

PERIOD OF EXCLUSION (of other inmates of house) 3 weeks.

3. Mumps.

SIGNS.—Pain and swelling, with stiffness of the lower jaw. Swelling in front of the ear and under the jaw, some feverishness and loss of appetite.

INFECTION is conveyed by the breath and discharges from the mouth and nose.

PERIOD OF EXCLUSION (of sufferer) until all swelling has disappeared, from 3 to 4 weeks.

PERIOD OF EXCLUSION (of other inmates in the house) 3 weeks.

4. Chicken Pox.

SIGNS.—Sometimes little preliminary illness, small red pimples or spots appear on the limbs and body, few on the face. In about 24 hours these change and become little blisters, containing a colourless fluid. They soon burst and form brownish scabs.

INFECTION.—Infection is conveyed by the skin, and also probably by the breath.

PERIOD OF EXCLUSION (of sufferer) until all the scabs have fallen off.

PERIOD OF EXCLUSION (of other inmates of the house) 15 to 20 days.

5. Whooping Cough.

SIGNS.—Begins with a cough, and without much sign of mischief, except that the cough gets more and more prolonged; there is no running of the eyes as in measles. In a few days' time the cough gets more prolonged, and ends with a characteristic *whoop*, followed usually by vomiting at the end of each fit of coughing; sometimes blood is expelled from the nose, and the eyes get bloodshot.

N.B.—*Any child coughing till vomiting is produced should be looked on as suspicious of having whooping cough.*

INFECTION is conveyed by the discharges from the mouth and by the breath.

PERIOD OF EXCLUSION (of actual sufferer) should be excluded until cough has disappeared, usually from six to eight weeks.

PERIOD OF EXCLUSION (of other inmates in the house) about 21 days.

6. Influenza.

SIGNS.—Begins with chilliness, and sometimes a shivering fit or rigour, feverishness, pains in the head, back, and limbs, and a feeling of prostration, running of the nose and eyes, and general symptoms of a bad cold.

INFECTION is conveyed by the breath and discharges from the mouth and nose.

PERIOD OF EXCLUSION (of actual sufferer) until general health is regained, generally from ten days to one month.

PERIOD OF EXCLUSION (of inmates in the house) one week.

CLASS III.

Diseases which require the exclusion only of the child actually suffering from the disease.

1. Erysipelas.

See Class I. for this description.

2. Ophthalmia.

(Contagious Eye Inflammation.)

SIGNS.—Swelling of the eyelids, great aversion to light, continuous running and discharge of yellowish matter, especially from the corners. The matter is highly contagious, causes the other eye to be affected, also other members of the family, and children in the same class at school.

INFECTION is by contact, a small portion of the matter being carried to the eye.

PERIOD OF EXCLUSION from school till all traces of the discharge have disappeared.

3. Ringworm.

SIGNS.—May be on the *Head* or on the *Body*.

1. *On Head.*—At first a round rough patch, with absence of hair or short bristles of hair visible, which eventually becomes quite bald, sometimes very smooth, and at other times very rough and scurfy.

2. *On Body*.—May be on the face, hands, arms, legs, or trunk. A circular reddish brown, slightly elevated rough patch, with raised edges, the centre being scaly.

INFECTION by contact or wearing each other's clothes.

PERIOD OF EXCLUSION from school until all trace of scales are removed from the skin, when on the body; and till signs of new hair, when on the head, begins to appear.

4. Scabies or Itch.

SIGNS.—*Small blisters*, then pimples, which are red and irritable. These are generally between the fingers, and in front of wrists, then the blisters burst and scabs form. Intense itching when the child gets warm, especially on going to bed.

INFECTION by direct contact with the person or from the clothes.

PERIOD OF EXCLUSION from school until all scabs, pimples, and blisters have disappeared.

5. Skin Eruptions of Head.

SIGNS.—Thick crust on the head, from under which yellowish matter exudes, often with a peculiar mousey smell, or it may be a number of little vesicles exuding a limpid fluid, which dries and forms scabs of crusts. *All eruptions on the head* should be looked on with suspicion. Often eruptions on the head are caused by lice, and the head should be examined for nits.

INFECTION by contact with diseased persons.

PERIOD OF EXCLUSION until all scabs or crusts have disappeared.

Disinfection.

The disinfection of clothing, bedding, &c., is carried out by the Steam Disinfector at the Miry Lane Dépôt. House disinfection is chiefly by Sulphur Dioxide, except in some cases when Formalin is employed. The particulars of the articles will be found in the Chief Sanitary Inspector's report.

SANATORIUM.

The Sanatorium has been severely taxed with an excessive number of cases, and a number had to be kept under observation outside. I am pleased to record that the new blocks of wards were opened on December 29th, 1902, and these will enable us to carry out isolation more efficiently. The Observation Wards and the Discharging Rooms will, I trust, prove of great service. The wards are now named :—

“Phillips” Block - - - Scarlet Wards.

“Gee” Block- - - - - “ ”

“Barnish” Block - - - Enteric and Typhus Wards.

The staff has been increased in consequence.

The number of return cases of Scarlet Fever has been 7 or 2·8 per cent.

The number of Infectious Cases notified compulsorily is as follows :—

	Notifica- tions.	Removed to Sanatorium.	Died in Sanatorium.
Small Pox	4	4	—
Typhus	—	—	—
Scarlet Fever	557	246	9
Enteric „	76	49	11
Diphtheria.....	58	1	—
Puerperal	10	—	—
Cholera	—	—	—
Membraneous Croup	2	—	0
Erysipelas	65	1	—
Other	1	—	1
Total	773	301	21

In the Sanatorium on December 31st, 1902, there were 38 patients, namely, Scarlet Fever 32, Enteric 2, Smallpox 3, others 1.

	Smallpox.	Scarlet.	Enteric.	Others.	Total.
In-Patients Jan. 1st, '02	0	26	16	0	42
Admitted in 1902	3	246	39	14	302
Discharged „	0	231	42	12	285
Died „	0	9	11	1	21
	3	32	2	1	38

The number of deaths in the Sanatorium was 21; 9 died from Scarlet Fever and 11 from Enteric, and 1 from Pneumonia.

During the year there were 285 patients discharged and 21 died, making a total of 306.

The number of days they were in was 1,274, or 44·8 days for each patient, against 37·00 days' average for 1901.

The cost of maintenance was as follows :—

1902.	Food.			Stimulants.		
	£	s.	d.	£	s.	d.
January	70	12	5	8	14	1
February	57	14	5	9	4	0
March	38	2	2	8	3	9
April.....	47	7	7	7	3	5
May	31	17	11	7	8	0
June	47	11	4	5	0	0
July	40	3	10	4	13	6
August.....	40	19	1	5	19	2
September	32	17	9	5	11	10
October	23	13	6	0	14	5
November	34	13	7	5	4	6
December	33	8	1	4	3	8
Total	£499	1	8	£72	0	4
Cost per patient, 1902	£1	13	0	£0	4	9
„ 1901	£1	9	10 $\frac{1}{4}$	£0	4	10 $\frac{1}{4}$
„ 1900	£1	12	6 $\frac{3}{4}$	£0	4	3 $\frac{1}{2}$
„ 1899	£1	12	4 $\frac{1}{4}$	£0	5	11 $\frac{1}{4}$
„ 1898	£1	8	6 $\frac{1}{4}$	£0	3	1 $\frac{1}{2}$

Number of notifications compared with other years :—

Diseases.	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Small Pox ...	13	2	91	33	0	0	0	0	0	4
Typhus	20	34	33	20	1	0	0	0	0	0
Scarlet	335	359	161	151	191	420	245	484	264	557
Enteric	264	68	64	101	64	93	173	104	71	76
Continued	71	32	29	2	0	0	0	0	0	0
Diphtheria	16	10	13	10	23	12	13	20	49	58
Puerperal ...	10	7	5	7	7	4	4	4	8	10
Cholera	0	0	0	0	1	0	0	0	0	0
Erysipelas	0	0	0	0	0	0	0	39	65	65
Mem. Croup	0	0	0	0	0	0	0	0	0	2
Total	729	512	396	324	287	529	435	651	457	772

Analysis of Notifications :—

1902	Jan.	Feb.	Mar	Apl.	May	Jun.	July	Aug	Sept	Oct.	Nov	Dec.	T'tal
Small Pox...	...	...	...	...	...	...	...	...	...	...	...	4	4
Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet	45	62	49	47	28	22	36	53	48	62	54	51	557
Enteric	11	5	7	3	7	5	10	5	4	12	3	4	76
Continued ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria...	6	6	3	1	5	4	5	7	7	6	6	4	60
Puerperal ...	2	1	2	1	1	...	1	...	1	...	2	...	11
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	5	8	4	4	7	4	4	4	7	4	9	5	65
Total.....	69	82	65	56	48	35	56	69	67	84	74	68	773

TABLE OF ADMISSIONS AND DISCHARGES FOR 1902.

1902.	Admitted.					Discharged.					Died.							
	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.	Small-pox.	Scarlet Fever.	Enteric.	Typhus.	Others.	Total.
January	0	21	4	0	4	29	0	22	11	0	4	37	0	0	0	0	0	0
February ...	0	13	4	0	3	20	0	14	5	0	0	19	0	0	2	0	0	2
March.....	0	24	5	0	1	30	0	17	6	0	2	25	0	1	0	0	0	1
April	0	22	2	0	0	24	0	20	4	0	2	26	0	2	0	0	0	2
May.....	0	24	5	0	1	30	0	23	4	0	1	28	0	0	1	0	0	1
June	0	16	0	0	1	17	0	12	3	0	0	15	0	2	0	0	1	3
July	0	22	6	0	3	31	0	31	0	0	3	34	0	1	2	0	0	3
August	0	21	2	0	0	23	0	20	2	0	0	22	0	3	2	0	0	5
September...	0	26	2	0	0	28	0	17	2	0	0	19	0	0	0	0	0	0
October	0	18	6	0	0	24	0	17	1	0	0	18	0	0	1	0	0	1
November ...	0	26	1	0	0	27	0	26	3	0	0	29	0	0	2	0	0	2
December ...	3	13	2	0	1	19	0	12	1	0	0	13	0	0	1	0	0	1
Total	3	246	39	0	14	302	0	231	42	0	12	285	0	9	11	0	1	21

The total cost of the Sanatorium is as follows:—

			Average Cost per Patient.		
			£	s.	d.
Master, Matron, and Nurses	661	3 0	2	3	9 $\frac{1}{4}$
Porter, Repairs, &c.....	709	0 11	2	6	11 $\frac{1}{4}$
Patients' Keep	499	1 8	1	13	0 $\frac{1}{4}$
Stimulants	72	0 4	0	4	9
Medical Superintendent.....	150	0 0	0	9	11
Clerk	10	0 0	0	0	8
	1902.....	2101 5 11	6	19	0 $\frac{3}{4}$
Ditto	1901.....	1992 9 6	9	6	5 $\frac{3}{4}$
„	1900.....	2038 14 11	7	5	6
„	1899.....	1914 12 4	7	4	6 $\frac{3}{4}$
„	1898.....	1851 3 11	7	16	2 $\frac{1}{2}$
„	1897.....	1384 4 7	10	12	3 $\frac{1}{8}$
„	1896..	1653 10 11	11	6	6 $\frac{3}{4}$

The Administrative Department cost:—

1902.	Wages.			Board.			Porter, Repairs and Sundries.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
January	29	10	0	26	9	0	73	8	3	129	7	3
February	27	3	4	24	5	8	23	14	10	75	3	10
March	29	5	0	26	9	0	53	0	9	108	14	9
April	29	5	0	26	9	0	74	4	1	129	18	1
May.....	29	5	0	26	9	0	34	17	11	90	11	11
June	28	11	8	26	9	0	17	7	10	72	8	6
July.....	27	3	4	22	13	2	79	17	6	129	14	0
August	27	17	6	24	2	6	11	11	10	63	11	10
September.....	28	6	8	23	4	0	39	10	9	91	1	5
October	30	14	5	27	18	6	103	15	12	162	8	10
November	28	0	0	26	9	0	49	14	7	104	3	7
December	32	4	4	32	17	11	44	5	7	109	7	10
	£347	6	3	£313	15	9	£605	9	10	£1266	11	10

SANATORIUM STAFF.

Master.	Two Ward Maids.
Housekeeper,	One Housemaid-Waitress.
Six Nurses.	One Kitchenmaid.
Three Probationers.	One Scullery Maid.
One Laundress.	One Porter and Gardener.
Two Assistant Laundresses.	

CONSTITUTIONAL DISEASES.

TUBERCULAR DISEASES.

Under the heading of Tubercular Diseases we include deaths from Consumptive diseases, such as Phthisis, Pulmonalis, Tabes Mesenterica, Tubercular Meningitis, Wasting Diseases of Infants (Marasmus), and other Tubercular affections.

The number of deaths from Phthisis is 55 against 73 in 1901 and 69 in 1900. The number of deaths from other Tubercular affections is 13 against 20 in 1901 and 18 in 1900.

From Wasting Diseases of Infants we have 50 deaths against 44 in 1901.

The rates are as follows :—

Phthisis Pulmonalis.....	89	per 1,000 of population.
Other Tubercular Diseases...	21	„
Wasting Diseases of Infants	80	„

If taken together as Tubercular affections we have 118 deaths, or a rate of 1.90 per 1,000 of the population.

PHTHISIS AND TUBERCULAR DISEASES, BUT NOT INCLUDING MARASMUS.

St. George Ward	11
Lindsay Ward.....	7
St. Catharine Ward	6
St. Patrick Ward	10
Queen Street (St. Thomas)	7
Poolstock Ward	1
Victoria Ward.....	7
St. Andrew Ward	5
Swinley Ward.....	2
All Saints Ward.....	4
In Union Workhouse, but belonging to Wigan	8

RHEUMATISM

Rheumatism caused 7 deaths against 11 deaths in 1901, and 12 in 1900, and we have 53 deaths from heart affections against 66 in 1901, and 58 in 1900.

LOCAL DISEASES.

RESPIRATORY DISEASES.

Respiratory Disease, such as Pneumonia and Bronchitis, caused 358 deaths against 318 in 1901; Pneumonia caused 200 against 172; and Bronchitis caused 158 against 148.

INQUESTS & UNCERTIFIED DEATHS.

The number of Inquests for 1902 is 85, against 120 for 1901, and 115 in 1900, and the following verdicts have been recorded :—

I.	Natural causes	24
II.	Accidents, burned.....	12
	„ run over	2
	„ scalded	5
	„ colliery	12
	„ fall downstairs	1
	„ drowned	9
	„ falls	4
	„ railway	4
	„ suffocation	1
	„ overlaid	2
	„ other	11
III.	Suicides, poison	2
	„ cut throat	2
	„ shooting	1
	„ railway	1
IV.	Murder, poison	1
	Open verdict	1
		<hr/>
		95
		<hr/>

There were 17 deaths uncertified in 1902, against 15 in 1901, and 10 in 1900. They were as follows :—

Bronchitis.....	1
Premature birth	5
Convulsions	5
Meningitis	1
Measles	1
Heart failure	1
„ disease	1
Apoplexy	1
Epilepsy	1
<hr/>	
17	

PROPERTY UNFIT FOR HUMAN HABITATION.

In consequence of the Housing of the Working Classes Committee having under consideration a scheme, or the consideration of a scheme for the provision of healthy dwellings, the scheduled list, which I submitted to the Insanitary Houses Committee in March, was postponed until a report could be presented from the other Committee.

The scarcity of houses at a moderate rent, and the vigorous action taken in previous years in regard to the demolition of insanitary houses, rendered it desirable that this delay should take place, as it was found that there was overcrowding to a considerable extent in many parts of the Borough.

The Corporation are building 50 artisans' dwellings, for which they had powers in a previous scheme. These houses, however, are too highly rented for the present occupiers of slum property. I hope the Housing of the Working Classes Committee will, however, be able to solve the difficulty, and provide us with houses of a suitable character for the displaced tenants of slum property. I find only one application has been made under the Small Dwellings Acquisition Act for a loan to buy a house.

BAKEHOUSES.

The Bakehouses have been regularly visited, and I have personally visited all the known bakehouses during the year, as the regulations as to underground bakehouses will come into operation in 1904. I have deemed it proper to present to the Committee a special report on the same.

Clauses in reference to underground bakehouses, Part V. (III.) of Factory and Workshop Act, 1901.

FACTORY AND WORKSHOPS ACTS AND SHOP HOURS ACT, 1892, 1895, 1899, AND 1901.

Mr. Sumner has supplied me with Mr. Bishop's report, which is as follows:—

SHOP HOURS ACT, 1892—1899.

“Two hundred and thirty shops have been visited, thirty-eight where young persons were employed contrary to the Act, by not complying with the Abstract, copies of which were at once obtained.

Observations *re* opening and closing of shops have been frequently taken, and I have reason to believe the hours are within the limit.

The attention of two proprietors has been called to employing young persons contrary to the Shop Hours Act, 1892. Section 3 (2).

Seats for Shop Assistants Act, 1899, has been complied with.”

FACTORY AND WORKSHOP ACT, 1901, Part V.
(III.) provides:—

Section 97.—(1.) It shall not be lawful to let or suffer to be occupied, or to occupy any room or place as a bakehouse, unless the following regulations are complied with:—

- (a) A water closet, earth closet, privy, or ashpit must not be within or communicate directly with the bakehouse;
- (b) Every cistern for supplying water to the bakehouse must be separate and distinct from any cistern for supplying water to a water closet;
- (c) A drain or pipe for carrying off fœcal or sewage matter must not have an opening within the bakehouse.

(2) If a person lets or suffers to be occupied or occupies any room or place as a bakehouse in contravention of this section, he shall be liable to a fine not exceeding forty shillings, and to a further fine not exceeding five shillings for every day during which any room or place is so occupied after a conviction under this section.

98.—(1) Where a court of summary jurisdiction is satisfied on the prosecution of an inspector or a District Council that any room or place used as a bakehouse is in such a state as to be on sanitary grounds unfit for use or occupation as a bakehouse, the occupier of the bakehouse shall be liable to a fine not exceeding for the first offence, forty shillings, and for any subsequent offence five pounds.

(2) The court of summary jurisdiction, in addition to, or instead of inflicting a fine, may order means to be adopted by the occupier, within the time named in the order, for the purpose of removing the ground of complaint. The court may, on application, enlarge the time so named, but if after the expiration of the time, as originally named or enlarged by subsequent order the order is not complied with, the occupier shall be liable to a fine not exceeding one pound for every day that non-compliance continues.

99.—(1) All the inside walls of the room of a bakehouse, and all the ceiling or tops of those rooms (whether those walls, ceilings, or tops are plastered or not), and all the passages or staircases of a bakehouse, must either be painted with oil, or varnished, or be limewashed, or be partly painted or varnished, and partly limewashed; and

(a) Where the bakehouse is painted with oil or varnished, there must be three coats of paint or varnish, and the paint or varnish must be renewed once at least in every seven years, and must be washed with hot water and soap once at least in every six months; and

(b) Where the bakehouse is limewashed, the limewashing must be renewed once at least in every six months.

(2) A bakehouse in which there is a contravention of this section shall be deemed not to be kept in conformity with this Act.

100.—(1) A place on the same level with a bakehouse, and forming part of the same building, may not be used as a sleeping place, unless it is constructed as follows; that is to say—

- (a) Is effectually separated from the bakehouse by a partition extending from the floor to the ceiling; and
- (b) Has an external glazed window of at least nine superficial feet in area, of which at the least four and a half superficial feet are made to open for ventilation.

(2) If any person lets or occupies or continues to let or knowingly suffers to be occupied any place contrary to this section, he shall be liable to a fine not exceeding, for the first offence, twenty shillings, and for any subsequent offence five pounds.

101.—(1) An underground bakehouse shall not be used as a bakehouse, unless it was so used at the passing of this Act.

(2) Subject to the foregoing provision, after the first day of January, 1904, an underground bakehouse shall not be used unless certified by the District Council to be suitable for that purpose.

(3) For the purpose of this section an underground bakehouse shall mean a bakehouse, any baking room of which is so situate that the surface of the floor is more than three feet below the surface of the footway of the adjoining street, or of the ground adjoining or nearest to the room. The expression "baking room" means any room used for baking, or for any process incidental thereto.

(4) An underground bakehouse shall not be certified as suitable, unless the District Council is satisfied that it is suitable as regards construction, light, ventilation, and in all other respects.

(5) This section shall have effect as if it were included among the provisions relating to bakehouses, which are referred to in section 26 of the Public Health (London) Act, 1891.

(6) If any place is used in contravention of this section, it shall be deemed to be a workshop, not kept in conformity with this Act.

(7) In the event of the refusal of a certificate by the District Council, the occupier of the bakehouse may,

within twenty-one days from the refusal, by complaint apply to a court that the bakehouse is suitable for use as regards construction, light, ventilation, and in all other respects, the court shall thereupon grant a certificate of suitability of the bakehouse, which shall have effect as if granted by the District Council.

(8) Where any place has been let as a bakehouse, and the certificate required by this section cannot be obtained unless structural alterations are made, and the occupier alleges that the whole or part of the expenses of the alterations ought to be borne by the owner, he may, by complaint, apply to a court of summary jurisdiction, and the court may make such order concerning the expenses, or their apportionment, as appears to the court to be just and equitable, under the circumstances of the case, regard being had to the terms of any contract between the parties, or in the alternative the court may, at the request of the occupier, determine the lease.

102.—As respects every retail bakehouse, the provisions of this part of this Act shall be enforced by the District Council of the district in which the retail bakehouse is situate, and not by an inspector, and for the purposes of this section the Medical Officer of Health of the District Council shall have, and may exercise all the powers of entry, inspection, taking legal proceedings and otherwise of an inspector.

In this section the expression “retail bakehouse” means any bakehouse or place, not being a factory, the bread, biscuits, or confectionery baked in which are sold, not wholesale, but by retail, in some shop or place occupied with the bakehouse.

DAIRIES AND COWSHEDS AND MILK SHOPS ORDER, 1885 AND 1886.

I have received the following Report from Mr. Woods, V.S., who is the Inspector under these Acts:—

DAIRIES, COWSHEDS, AND MILK SHOPS ORDER.

GENTLEMEN,

I beg to place before the Committee a *resume* of the year's work under the above Order.

I reported last year that there were 25 cowsheds in Wigan. There has been one additional application for registration, but three cowkeepers have since the new regulations came into force ceased to keep milch cows, leaving now 23 cowkeepers who sell milk to the public, with a total of about 240 milch cows within the Borough.

Last year only two of the cowsheds complied with the regulations, all the others required alterations, generally speaking, of an extensive character, and in some cases nothing short of pulling down the old cowshed and complete re-construction could be resorted to.

I found at first that most occupiers were willing to agree that their cowsheds did not quite satisfy the regulation, therefore I determined to work the town in sections, and chose the Scholes and Whelley end first, as this end contained several wealthy owners, who might reasonably be asked to be the first to move. The result has been most encouraging. One entirely new and satisfactory cowshed has been built in the place of the old one, and two have been so considerably altered structurally as to conform to the regulations, while I have the promises of the landlords of another to commence work as soon as the weather is sufficiently settled. Only one unsatisfactory cowshed now exists on that section. The Medical Officer of Health and I have been in consultation over this one, and if no attempt is made during the Spring months to render it in conformity with the regulations, I shall ask the Town Clerk to assist me in taking steps to close it.

At the Poolstock end there are three cowsheds, one of which is satisfactory, and one I have reason to believe will be closed almost immediately.

At the Wallgate end are four cowsheds: one is satisfactory; one has been altered, but not sufficiently, and one is now in process of being rebuilt; the fourth has been extensively altered, with the exception of the flooring, and is now satisfactory.

In Wigan Lane, in one case the landlord has promised the requisite alterations, but has refused to do anything in the case of Colinfeld Farm, the result being

that the tenant has left, and the cowshed is now empty ; while in the third case, after a good deal of trouble, I believe the tenant, who is also the owner, will at last submit to the inevitable without compulsion.

In four cases I have been quite unable to make any progress, and I consider that strong measures should be adopted as soon as the Summer months commence, unless some sort of definite promise for immediate attention is given.

I feel that I must again draw attention to the fact that while every cow's udder in the Borough is periodically examined, and the cowshed regularly inspected, the same does not apply to outside Dairies, although the greater part of the milk used in the Borough comes from outside, and in doing so I would point out that there is now power to visit and examine suspected cowsheds outside the Borough, provided the milk is sold within the Borough, and that the only method of determining whether Tuberculous milk is being disposed of in the Borough is to take samples and have them examined by a competent Bacteriologist. This is regularly done in Manchester, Liverpool, and other large towns, with very satisfactory results.

In conclusion I beg to acknowledge the courtesy of the Medical Officer of Health, whose time has been freely given to me both for consultation and also visits to many of the cowsheds.

Signed,

WM. WOODS,

Veterinary Inspector.

MEAT INSPECTION AND SLAUGHTER HOUSES.

The Inspectors have visited the Slaughter Houses regularly, and I have been called in periodically to examine meat.

My suggestions have been acceded to, and the meat surrendered when I thought it was unfit for human food

On May 26th we had a prosecution for exposing unsound food for sale, but the Magistrates dismissed the case.

BLACK SMOKE NUISANCE.

Observations have been taken frequently and notices served on the offenders, but no prosecutions have taken place. Much more could be done in the prevention of this nuisance if the Sanitary Officials were supported to the same extent as they are in other manufacturing towns. Some improvement has taken place during the last few years, but we are much behind what can be attained if proper efforts were made by the offenders.

WATER SUPPLY.

During the year the water has been sufficient in quality and quantity. Additional water has been obtained from Manchester, and also the Water Committee expect a greater supply from the Deep Well in Wrightington.

Mr. Orsman's monthly analysis is as follows :—

January.—Hardness before boiling, 9·5 degrees, after 7·0 degrees. The water is clear and well filtered. Shows very little change since last month.

February.—Hardness before boiling, 9·0 degrees, after, 7·0 degrees. The above sample is almost identical with last month. The cold weather has reduced the nitrates somewhat.

March.—Hardness before boiling, 8 degrees, after, 5 degrees. The above sample is softer, and the total solids are lower than last month. The albuminoids are practically the same.

April.—Hardness before boiling, 8·5 degrees, after, 6·0 degrees. The above water shows only a slight change from last month.

May.—Hardness before boiling, 8·5 degrees, after 5·6 degrees. The water is slightly harder than last month. The nitrates, however, are higher, showing active oxidisation.

June.—Hardness before boiling, 8·5 degrees, after, 5·0 degrees. The albuminoids are slightly lower than last month, otherwise there is little change in the composition of the water.

July.—Hardness before boiling, 8·4 degrees, after, 5·2 degrees. The albuminoids are again lower this month and the water appears bright and clear. The hardness is the same as last month.

August.—Hardness before boiling, 8·7 degrees, after, 5·6 degrees. The above shows little change from last month. Both the hardness and albuminoids are low. An estimation of the amount of oxygen required to oxidise organic matter is also very small.

September.—Hardness before boiling, 9 degrees, after, 5 degrees. The above water is practically the same as last month as regards chemical composition. There are no nitrates in the above sample, which may be taken as showing increased freedom from organic matter.

October.—Hardness before boiling, 11 degrees, after, 5 degrees. The water has increased somewhat in temporary hardness since last month, otherwise there is no change.

November.—Hardness before boiling, 10·5 degrees, after, 5 degrees. The above sample is bright and clear and is slightly softer than last month. The albuminoids keep low.

December.—Hardness before boiling, 12 degrees, after, 8 degrees. The above sample of water is harder and contains more albuminoid ammonia than that taken last month. The water appears bright and clear.

RAINFALL.

Summary for 1902.

Supplied by the Borough Engineer.

Month.	Rainfall in inches.	No. of days on which rain fell, being 0·1 of an inch or more.
January	2·81	20
February	1·43	12
March	2·59	23
April	1·97	13
May	3·73	25
June	1·64	13
July	3·34	20
August	2·12	16
September	1·89	14
October	3·96	20
November	2·07	13
December	3·00	17
	30·55	206

The yearly average rainfall for the last ten years is 32·87, and the yearly average number of days on which rain fell, covering the same period, is 196.

UNPAVED YARDS AND PASSAGES.

Very little has been done in respect to unpaved yards and passages, but the back yards in Holt Street and Canal Street have been paved, and the w.c.'s put in to replace the pails. I do hope we shall see much more done in the coming year, for these unpaved yards are, in my opinion, a menace to public health.

BOROUGH SURVEYOR'S DEPARTMENT.

The Borough Surveyor has kindly supplied me with the following particulars:—

	T.	C.	Q.
House refuse collected in Borough from January 1st to December 31st, 1902	17,784	15	2
Pail excreta removed	8,010	17	0
Nightsoil removed	490	5	0
Number of pail closets in borough	8,190		
Number of pails collected in 1902	467,460		
Cost (including washing and distribution)	£2,159	12	11
Cost of collecting ashes during 1902	£2,018	11	0

Number of privy middens in borough	...	25
„ „ emptied in 1902	...	470
„ new houses erected in 1902	...	201
„ slop closets put in in 1902	...	nil
„ water closets in borough	...	2,546

WM. BOLTON,
Borough Engineer.

WIGAN CORPORATION ACT, 1902.

A Bill was promoted in Parliament in 1902, and received Royal Assent in that year.

It contains the following important provisions in regard to Sanitary matters:—

PART V.—STREETS AND BUILDINGS.

Section 22.—(1) The owners or occupiers of all lands abutting upon any public street and the owners or occupiers of all lands abutting upon or adjoining any private street communicating with any public street, shall so fence off, channel, or embank their lands as to prevent the soil and sand of such lands falling upon or being washed or carried into any public street sewer or gully in such quantities as will obstruct the highway or choke up such sewer or gully.

(2) Any person who shall offend against this section shall for every such offence be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding forty shillings.

(3) For the purpose of this section “public street” means a street repairable by the inhabitants at large and “private street” means a street not so repairable:

(4) Provided that this section shall not apply to any lands of a *bona fide* agricultural character.

23.—(1) The entrance to any court or similar place shall not at any time, after the passing of this Act, be closed or narrowed or built over or the height or headway thereof lowered.

(2) Any person who shall offend against this section shall for every such offence be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding forty shillings.

27.—From and after the passing of this Act:—

- (1) The conversion of two or more buildings originally constructed as separate dwelling-houses into one dwelling-house;
- (2) The re-conversion into a dwelling-house of any building which has been discontinued as and appropriated for any purpose other than that of a dwelling-house;
- (3) The conversion of a dwelling-house into any other building not intended for human habitation;
- (4) The conversion of a building which when originally erected was legally exempt from the operation of any building bye-laws in force within the borough into a building which had it been originally erected in its converted form would have been within the operation of those bye-laws;
- (5) The making of any addition to a building by raising any part thereof or making any projection therefrom, but (provided such addition do not increase the number of storeys) so far as regards such addition only; and
- (6) The roofing or covering over an open space between walls or buildings; shall for all the purposes of this Act and the Public Health Acts and of any bye-laws made thereunder respectively be deemed to be the erection of a “new building.”

29.—The provisions of section 73 of the Public Health Act, 1875, shall extend and apply to every person occupying or suffering to be occupied any cellar which does not conform with the requirements of section 72 of that Act, although such cellar is not let or occupied for hire or rent.

30.—(1) Whenever the Medical Officer, Surveyor, or Inspector of Nuisances has reasonable grounds for believing that the drains connected with any building are defective so as to cause risk to health, he may after twenty-four hours' notice and with the consent (except in the cases of houses let in separate dwellings) of the owner or occupier of such building, or in the event of objection by any such owner or occupier after obtaining the order of a court of summary jurisdiction apply such test as he may consider efficient to such drains for the purpose of discovering any defects therein.

(2) Any owner or occupier who refuses notwithstanding such order to allow such test to be made or to give all reasonable facilities for making such test shall be liable to a penalty not exceeding forty shillings and to a daily penalty not exceeding twenty shillings.

(3) If the drains be found defective the owner of the premises shall be bound, on receiving notice from the Corporation to that effect, specifying generally the nature of the defect to execute all necessary works for remedying the same within a reasonable time to be specified in the notice, and if he makes default in so doing the Corporation may enter and so execute the works and recover the expenses thereof from the owner: Provided that nothing in this section shall affect contracts between owners and occupiers.

(4) Nothing in this section shall authorise the use of a test by means of water under pressure.

31.—Before any drain existing at the time of the passing of this Act, and then not communicating with any sewer of the Corporation shall be made to communicate with any sewer of the Corporation, the Corporation may require the same to be laid open for examination by the Surveyor, and no such communication shall be made until the Surveyor shall certify that such drain may be properly made to communicate with such sewer, and the Surveyor shall as soon as can be cause the ground to be closed, and any damage done to be made good, and the expense of such examination shall be defrayed by the Corporation.

32.—(1) It shall not be lawful for any person to reconstruct or alter the course of any drain communicating with any sewer of the Corporation, except in accordance with the provisions of the bye-laws relating to the drainage of new buildings.

(2) Any person who shall offend against this section shall for every such offence be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding forty shillings.

33.—Any person who shall cause any drain or any sanitary convenience to be a nuisance or injurious or dangerous to health by wilfully destroying or damaging the same, or any water supply, apparatus, pipe, or work connected therewith, or by otherwise wilfully stopping up or wilfully interfering with or improperly using the same, or any such water supply, apparatus, pipe or work shall for every such offence be liable to a penalty not exceeding five pounds.

Provided that nothing in this section shall prejudice any right which the owner or occupier of any premises aggrieved by any such act may have to recover compensation in respect of any damage suffered by him by reason of such act.

34.—(1) If any urinal or other sanitary convenience now or hereafter opening on or visible from any street shall in the opinion of the Corporation be so placed or constructed as to be a nuisance or offensive to public decency the Corporation by notice in writing may require the owner to remove such urinal or convenience.

(2) Any person who fails within a reasonable time to comply with a notice under this section shall be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding twenty shillings.

35.—(1) Where any inn, public-house, beer-house, eating-house, or other place of public entertainment built before or after the passing of this Act, has no urinal belonging to or attached thereto, the Corporation may by notice in writing require the owner of such inn,

public-house, beer-house, eating-house, or other place of public entertainment to provide and maintain on the premises in a position to be specified in the notice a sufficient urinal or urinals.

(2) Any such owner who fails within a reasonable time to comply with a notice under this section shall be liable to a penalty not exceeding forty shillings, and to a daily penalty not exceeding twenty shillings.

36.—The provisions of this part of this Act shall not, except as regards any building used or occupied as a dwelling-house, apply to any building belonging to or occupied by an existing railway company incorporated by Act of Parliament and used or intended to be used for the purposes of their business as a railway company.

PART VI.—SANITARY MATTERS.

Section 37.—(1) No person suffering from an infectious disease shall within the borough milk any animal or pick fruit or engage in any occupation connected with food intended for the use of man or carry on any trade or business in such a manner as to be likely to spread infectious disease.

(2) No person suffering from an infectious disease shall without the borough milk any animal or pick fruit or engage in any occupation connected with food intended for the use of man where such milk, fruit, or food is intended for consumption within the borough.

(3) Every person who shall wilfully or knowingly offend against this enactment shall for every such offence be liable to a penalty not exceeding forty shillings, and to a daily penalty not exceeding twenty shillings.

38.—(1) Whenever the Medical Officer shall be of opinion that it is desirable, with a view to prevent the spread of infectious disease, that he shall be furnished with a list of the customers of any person earning a livelihood or deriving gain by the washing or mangling of clothes, the Medical Office may, by notice, require such person to furnish to him within a reasonable time

to be specified in the notice a full and complete list of the names and addresses of the owners of clothes for whom such person washes or mangles, or has washed or mangled during the past six weeks, and such person shall furnish such list accordingly, and the Corporation shall pay to him for every such list the sum of sixpence, and at the rate of sixpence for every twenty-five customers named therein, but no such payment shall exceed three shillings.

(2) Every person who shall wilfully or knowingly fail to comply with the provisions of this enactment shall for every such offence be liable to a penalty not exceeding forty shillings and to a daily penalty not exceeding twenty shillings.

39.—(1) Whenever any scholar who attends any school within the borough shall be known to be suffering from any infectious disease the principal or person in charge of such school or (if such school is divided into separate departments, and there is no principal or person in charge of the whole school) the person in charge of the department which such scholar attends shall forthwith send notice thereof to the Medical Officer, and shall furnish to him at his request a list of the pupils attending at the school, together with their addresses, and the Corporation shall pay.

40.—(1) No person being the parent or having the care or charge of a child, who is or has been suffering from infectious disease, shall after a notice from the Medical Officer that the child is not to be sent to school, permit such child to attend school without having procured from the Medical Officer a certificate (which shall be granted free of charge upon application) that in his opinion such child may attend without undue risk of communicating such disease to others. For the purposes of this section infectious diseases shall include whooping cough: Provided that in the case of the last-mentioned disease a certificate of any registered medical practitioner shall be sufficient for the purposes of this section.

(2) Any person who shall offend against this enactment shall for every such offence be liable to a penalty not exceeding forty shillings.

41.—(1) Where on the certificate of the Medical Officer, Surveyor, or Inspector of Nuisances it appears to the Corporation that any articles in any house or part thereof are in such a filthy and dangerous or unwholesome condition that health is affected or endangered thereby or that the cleansing or purifying or destroying of any such articles is requisite to prevent risk of or to check infectious disease the Corporation may, if they think fit cause any such articles in any such house or part thereof to be at their own expense cleansed or purified or they may destroy the same.

(2) If the owner of any such article suffer unnecessary damage through such cleansing or purification the Corporation shall compensate him for the same, and the Corporation shall also reasonably compensate such owner for any articles destroyed.

42.—If any dairyman shall, at the request of the Corporation, stop his milk supply within the borough on account of the spread or suspected spread of infectious disease, or the probability that the consumption of such milk may cause tuberculosis to persons residing within the borough, the Corporation may make compensation to him for any loss occasioned by such stoppage.

43.—It shall not be lawful to hold any wake over the body of any person who has died of an infectious disease, and the occupier of any house or premises or part of a house or premises, who permits or suffers any such wake to take place in such house or premises, or part of a house or premises, and every person who with the knowledge of this prohibition attends to take part in such wake shall be liable to a penalty not exceeding forty shillings.

44.—(1) Any person being a manufacturer of or a merchant or dealer in ice cream or other similar commodity, who within the borough—

- (a) Causes or permits ice cream or any similar commodity to be manufactured, sold, or stored in any cellar or room in which there is an inlet or opening to a drain ; or

- (b) In the manufacture, sale, or storage of any such commodity does any act or thing likely to expose such commodity to infection or contamination, or omits to take any proper precaution for the due protection of such commodity from infection or contamination ; or
- (c) Omits on the outbreak of any infectious disease amongst the persons employed in his business to give notice thereof to the Medical Officer—shall be liable for every such offence to a penalty not exceeding forty shillings.

(2) In the event of any inmate of any building (any part of which is used for the manufacture of ice cream or similar commodity) suffering from any infectious disease, the Medical Officer may seize and destroy all ice cream or similar commodity or materials for the manufacture of the same in such building, and the Corporation shall compensate the owner of the ice cream commodity or materials so destroyed.

45.—The Corporation may appoint more than one inspector of nuisances, and section 189 of the Public Health Act, 1875, and section 24 of the Local Government Act, 1888, shall for the purposes of the execution of those Acts within the borough be construed accordingly.

46.—It shall not be lawful to blow or inflate the carcase or any part of the carcase of any animal or bird intended for the food of man, or to expose or deposit for sale within the borough a carcase so blown or inflated or any part thereof, and any person who shall offend against this enactment shall for every such offence be liable to a penalty not exceeding five pounds.

47.—No trade refuse, building materials, or rubbish of a like description shall be deposited in any water-closet, waste water-closet, privy, cesspool, ash-pit, or ash-tub, and if any such refuse, materials, or rubbish be so deposited the Corporation may make a reasonable charge for the removal of the same, which charge shall be paid to the Corporation by the occupier of the premises in respect of which the charge is made.

48.—Public notice of the provisions of this part of this Act shall be given forthwith after the passing of this Act by advertisement in two newspapers published or circulated in the borough, and by notice affixed outside the Town Hall, and by the distribution of hand-bills amongst persons affected or likely to be affected so far as such persons can reasonably be ascertained. Copies of the newspapers containing the advertisement shall be sufficient evidence that the provisions of this section have been complied with.

PART VII.—MILK SUPPLY (TUBERCULOSIS).

Section 49.—Every person who knowingly sells or suffers to be sold or used for human consumption within the borough, the milk of any cow which is suffering from tuberculosis of the udder shall be liable to a penalty not exceeding ten pounds.

50.—Any person, the milk of the cows in whose dairy is sold or suffered to be sold or used for human consumption within the borough who after becoming aware that any cow in his dairy is suffering from tuberculosis of the udder keeps or permits to be kept such cow in any field, shed, or other premises along with other cows in milk shall be liable to a penalty not exceeding five pounds.

51.—(1) Every dairyman who supplies milk within the borough and has in his dairy any cow affected with or suspected of or exhibiting signs of tuberculosis of the udder shall forthwith give written notice of the fact to the medical officer, stating his name and address, and the situation of the dairy or premises where the cow is.

(2) Any dairyman failing to give such notice as required by this section shall be liable to a penalty not exceeding forty shillings.

52.—(1) It shall be lawful for the medical officer or any person provided with and if required exhibiting the authority in writing of such medical officer to take within the borough for examination samples of milk produced or sold or intended for sale within the borough.

(2) The like powers in all respects may be exercised outside the borough by the medical officer or such authorised person if he shall first have obtained from a justice having jurisdiction in the place where the sample is to be taken an order authorising the taking of samples of the milk, which order any such justice is hereby empowered to make.

53.—(1) If milk from a dairy situate within the borough is being sold or suffered to be sold or used within the borough, the medical officer or any person provided with and if required exhibiting the authority in writing of the medical officer may if accompanied by a properly qualified veterinary surgeon at all reasonable hours enter the dairy and inspect the cows kept therein, and if the medical officer or such person has reason to suspect that any cow in the dairy is suffering from tuberculosis of the udder he may require the cow to be milked in his presence, and may take samples of the milk, and the milk from any particular teat shall if he so requires be kept separate and separate samples thereof be furnished.

(2) If the medical officer is of opinion that tuberculosis is caused or is likely to be caused to persons residing in the borough from consumption of the milk supplied from a dairy situate within the borough or from any cow kept therein, he shall report thereon to the Corporation, and his report shall be accompanied by any report furnished to him by the veterinary surgeon and the Corporation may thereupon serve on the dairyman notice to appear before them within such time not less than twenty-four hours as may be specified in the notice to show cause why an order should not be made requiring him not to supply any milk from such dairy within the borough until the order has been withdrawn by the Corporation.

(3) If the medical officer has reason to believe that milk from any dairy situate outside the borough from which milk is being sold or suffered to be sold or used within the borough is likely to cause tuberculosis in persons residing within the borough, the powers conferred by this section may in all respects be exercised in the case of such dairy: Provided that the medical officer or

other authorised person shall first have obtained from a justice having jurisdiction in the place where the dairy is situate an order authorising such entry and inspection which order any such justice is hereby empowered to make.

(4) Every dairyman and the persons in his employment shall render such reasonable assistance to the medical officer or such authorised person or veterinary surgeon as aforesaid as may be required by such medical officer, person or veterinary surgeon for all or any of the purposes of this section, and any person refusing such assistance or obstructing such medical officer, person or veterinary surgeon in carrying out the purposes of this section, shall be liable to a penalty not exceeding five pounds.

(5) If in their opinion the dairyman fails to show cause why such an order may not be made as aforesaid, the Corporation may make the said order and shall forthwith serve notice of the facts on the County Council of the administrative county in which the dairy is situate, and on the Local Government Board, and if the dairy is situate outside the Borough on the Council of the Borough or district in which it is situate.

(6) The said order shall be forthwith withdrawn on the Corporation or their medical officer, being satisfied that the milk supply has been changed or that it is not likely to cause tuberculosis to persons residing in the borough.

(7) If any person after such order has been made supplies any milk within the borough, in contravention of the order, or sells it for consumption therein he shall be liable to a penalty not exceeding five pounds, and if the offence continues to a further penalty not exceeding forty shillings for every day during which the offence continues.

(8) A dairyman shall not be liable to an action for breach of contract if the breach be due to an order under this section.

(9) (a) The dairyman may appeal against an order of the Corporation under this section, or the refusal of the Corporation to withdraw any such order, either to a petty sessional court having jurisdiction within the borough, or at his option if the dairy is situate outside the borough to the Board of Agriculture, who shall appoint an officer to hear such appeal. Such officer shall fix a time and place of hearing within the borough, and give notice thereof to the dairyman and the Town Clerk not less than forty-eight hours before the hearing. Such officer shall for the purposes of the appeal have all the powers of a petty sessional court.

(b) The Board of Agriculture may at any stage require payment to them by the dairyman of such sum as they deem right to secure the payment of any costs incurred by the Board of Agriculture in the matter of the appeal.

(c) The Court or the Board of Agriculture, as the case may be, may confirm, vary, or withdraw the order, which is the subject of the appeal, and may direct to and by whom the costs of the appeal (including any sum paid or payable to the Board of Agriculture) are to be paid, but pending the decision of the appeal the order shall remain in force unless previously withdrawn by the Corporation.

(10) (a) If an order is made without due cause or if the Corporation unreasonably refuse to withdraw the order, the dairyman shall, if not himself in default, be entitled to recover from the Corporation full compensation for any damage which he has sustained by reason of the making of the order, or of the refusal of the Corporation to withdraw the order.

(b) The Court or the Board of Agriculture may determine and state whether an order, the subject of appeal has been made without due cause, and whether the Corporation have unreasonably refused to withdraw the order, and whether the dairyman has been in default.

(c) Any dispute as to the fact whether the order has been made or maintained without due notice, or as to the

fact of default where any such fact has not been determined by the Court or Board of Agriculture, or as to the fact of damage, or as to the amount of compensation shall be determined in the manner provided by section three hundred and eight of the Public Health Act, 1875, and that section shall accordingly apply, and have effect as if the same were herein re-enacted, and in terms made applicable to any such dispute as aforesaid.

54.—The Corporation shall cause to be given public notice of the effect of the provisions of this part of this Act by advertisement in local newspapers and by handbills, and otherwise in such manner as they think sufficient, and this part of this Act shall come into operation at such time not being less than one month after the first publication of such an advertisement as aforesaid as the Corporation may fix.

55.—Offences under this part of this Act may be prosecuted, and penalties may be recovered by the Corporation before a Petty Sessional Court having jurisdiction in the place where the dairy is situate, or the offence is committed, and not otherwise.

56.—All the expenses incurred by the Corporation in carrying into execution the provisions of this part of this Act shall be chargeable upon the District Fund and General District Rate, and the Corporation may also charge upon the same rate any expenses incurred by them in the application by a veterinary surgeon of the tuberculin, or other reasonable test for the purpose of discovering tuberculosis to any cow whose milk is or was recently being supplied within the borough: Provided that no such test shall be applied except with the previous consent of the owner of such cow.

57.—The provisions of this part of this Act may be carried into execution by a committee of the council formed in accordance with and subject to the provisions of the fourth schedule to the Diseases of Animals Act, 1894, except that the committee shall consist wholly of members of the council.

PART VIII.—COMMON LODGING HOUSES.

Section 58.—(1) The keeper of every common lodging-house shall reside constantly and shall remain between the hours of nine o'clock in the afternoon and six o'clock in the forenoon in such house, and shall manage, control, and exercise proper supervision over the same, and the inmates thereof, except at such times as some other person who is appointed by him for that purpose and whose name is registered at the office of the Corporation shall with the approval of the Corporation in writing, under the hand of their officer appointed for that purpose (which approval and registration shall be revocable by the Corporation) reside and remain in such house and manage, control, and exercise proper supervision over the same and the inmates thereof as the case may be.

(2) Any person who shall offend against this section shall for every such offence be liable to a penalty not exceeding forty shillings, and to a daily penalty not exceeding twenty shillings.

59.—(1) Notwithstanding anything in the Public Health Act, 1875, the registration of a common lodging-house or of the keeper of a common lodging-house shall operate for one year only, and application for the renewal of such registration shall be made to the Corporation on or previous to the thirty-first day of December in every year.

(2) (a) The Corporation may notwithstanding the provisions of section 78 of the Public Health Act, 1875, refuse to register or to re-register any person as a common lodging-house keeper unless they are satisfied of his character and fitness for the position.

(b) Any person aggrieved by such refusal may appeal to a court of summary jurisdiction within fourteen days after such refusal provided he give twenty-four hours' notice of such appeal and of the grounds thereof to the Town Clerk, and the court shall have power to make such order as they may think fit, and to award costs.

(3) Every person who without being registered in accordance with the Public Health Act, 1875, and this Act shall keep a common lodging-house within the borough, and every person who after the thirty-first day of December, one thousand nine hundred and two, shall keep a common lodging-house without the registration of such person and of such house being renewed for the current year shall be liable to a penalty not exceeding five pounds and to a daily penalty not exceeding forty shillings.

60.—Notice of the provisions of this part of this Act shall be served upon the keeper of every common lodging-house either personally or by leaving the same at the common lodging-house.

PART IX.—SLAUGHTER-HOUSES AND COLD-AIR STORES.

Section 61.—(1) The Corporation may by notice to the owner and occupier of any registered slaughter-house within the borough which from its situation or construction is in the opinion of the Corporation injurious or dangerous to the public health require that the premises shall cease to be used as a slaughter-house on and after such date (not being less than six months from the service of such notice) as may be specified in the notice, and no person shall after such date slaughter in the way of trade any cattle, horse, sheep, or pig on the said premises.

(2) The Corporation shall make compensation to the owner and occupier of any registered slaughter-house who shall be injuriously affected by any requirement of the Corporation under sub-section (1) of this section.

(3) If any person acts in contravention of the provisions of sub-section (1) of this section he shall be liable for each offence to a penalty not exceeding five pounds.

62.—(1) At any time after the passing of this Act the Corporation may :—

(a) Acquire by agreement any premises within the borough used for the purpose of slaughtering

cattle (in this Act referred to as a "slaughter-house") and the interest or interests of any owner, lessee, or occupier of such premises.

(b) Agree with the owner, lessee, or occupier of any slaughter-house for the abolition of slaughtering therein, on such terms and conditions as may be arranged between the parties.

(2.) (a) At any time after the expiration of five years from the passing of this Act and after the Corporation have provided adequate slaughter-houses in convenient positions (to the satisfaction of the Local Government Board) and after the expiration of six calendar months from the date of publication by the Corporation in two local newspapers circulating in the borough, of notice to that effect, no person shall slaughter any cattle within the borough in the way of trade, except in slaughter-houses provided by the Corporation, but this sub-section shall not apply to the slaughtering by a farmer on his own premises.

(b) Any person who shall act in contravention of this sub-section shall be liable for every offence to a penalty not exceeding five pounds.

(3.) The Corporation shall pay compensation to the owner, lessee, and occupier of every such slaughter-house who may be injuriously affected by the exercise of the powers of the last preceding sub-section.

(4.) The Corporation may make bye-laws for prescribing the fees and charges to be demanded and received by them in respect of the use of any slaughter-house provided by them, or of any convenience connected therewith, and the Corporation shall not demand or receive fees or charges in excess of the fees and charges so prescribed: Provided that the Corporation shall be entitled to charge for any slaughter-house or part thereof let at a weekly, monthly, or other rent, such sum as may be agreed upon by the Corporation and the person to whom such slaughter-house or part thereof is let.

(5) Nothing in this section shall interfere with the operation or effect of the Diseases of Animals Act, 1894, or of any order or licence of the Board of Agriculture made or granted thereunder.

63.—(1) The Corporation may on any land for the time being belonging to them or acquired by them for the purposes of this section construct and maintain a refrigerator or cold-air store with all machinery, apparatus and appliances necessary for the proper working and use thereof for the storage and preservation of marketable commodities and meat: Provided that the Corporation shall not use for the purposes of this section any lands vested in them for any other purposes except with the consent of the Local Government Board, and upon and subject to such terms and conditions as that Board may prescribe.

(2) The Corporation may demand and take in respect of the use of any such refrigerator or cold-air store such charges as the Corporation may determine.

(3) The Corporation may lease for any term not exceeding twenty-one years, any such refrigerator or cold-air store or any part thereof at such rent and on such terms and conditions as the Corporation may think fit.

PART X.—ADVERTISEMENTS.

Section 64.—It shall not be lawful in any street to use any vehicle exclusively or principally for the purpose of displaying advertisements, or for two or more persons together to carry a board or boards for such purpose without the consent of the Corporation, which consent shall be in writing, and may be for such time and contain such terms and conditions as the Corporation think fit.

65.—(1) Every hoarding or similar structure in or abutting on or adjoining any street shall be securely erected and maintained.

(2) It shall not be lawful to erect any hoarding or similar structure to be used either wholly or partly for advertising purposes in or abutting on or adjoining any street to a greater height than twelve feet above the level of such street without the consent of the Corporation, and such consent may be given subject to such conditions as to the submission of a plan and elevation, and as to the dimensions and maintenance of such hoarding as the Corporation may determine.

(3) The owner or other person using any hoarding, wall, or other structure for advertising purposes in or abutting on or adjoining any street, whether erected before or after the passing of this Act, shall at all times hereafter keep and maintain the same in proper and safe repair and condition, and in the event of any papers affixed to such hoarding, wall, or other structure falling off or becoming detached shall forthwith remove and clear away such papers.

(4) Any consent or condition given or made under this section may be under the hand of the Town Clerk or the Surveyor.

66. Any person who acts in contravention of any of the provisions of this part of this Act or who violates any conditions made or the terms of any consent given in pursuance of such provisions shall be liable to a penalty not exceeding five pounds, and to a daily penalty not exceeding twenty shillings.

67. Any person deeming himself aggrieved by the refusal of the Corporation to grant a consent under the provisions of this part of this Act or by the conditions attached to such consent may appeal to a court of summary jurisdiction within fourteen days after such refusal or after the giving of such consent (as the case may be) provided he give twenty-four hours' notice of such appeal and of the grounds thereof to the Town Clerk, and the court shall have power to make such order as the court may think fit, and to award costs.

APPENDIX I.

COUNTY BOROUGH OF WIGAN.

WIGAN CORPORATION ACT, 1902. PART VII.
MILK SUPPLY (TUBERCULOSIS).

NOTICE IS HEREBY GIVEN that the Provisions of Part VII. of the Wigan Corporation Act, 1902, will come into operation on the 1st day of January, 1903.

The effect of the said Provisions is as follows :—

SECTION 49.—Every person who sells or suffers to be sold or used for human consumption within the Borough the milk of any cow which is suffering from tuberculosis of the udder shall be liable to a penalty not exceeding £10.

SECTION 50.—For knowingly failing to isolate cows suffering from tuberculosis of the udder a penalty of £5 is imposed.

SECTION 51.—Dairymen must give notice to the Medical Officer of any cow affected with or suspected of tuberculosis of the udder. Penalty for failing to give notice 40s.

SECTION 52.—Empowers the Medical Officer or any person authorised by him to take within the Borough samples of milk produced or sold or intended for sale. Also to take samples outside the Borough upon the order of a magistrate having jurisdiction in the place where the sample is taken.

SECTION 53.—Empowers the Medical Officer or any person authorised by him, if accompanied by a qualified Veterinary Surgeon, to enter dairies situate within the Borough and inspect the cows therein, and if he suspects any cow is suffering from tuberculosis of the udder he may require the cow to be milked in his presence and may take samples of the milk in the manner prescribed.

If the Medical Officer is of opinion that tuberculosis is caused or likely to be caused to any person from the consumption of milk supplied from any such dairy,

the Corporation may require the dairyman to appear before them and show cause why an order should not be made requiring him not to supply milk within the Borough. The same powers are conferred with respect to dairies situate outside the Borough, provided an order of a Justice having jurisdiction for the place where the dairy is situate is obtained, authorising entry and inspection.

Dairymen failing to give every reasonable assistance to or obstructing the Medical Officer in carrying out the purposes of this section, are subject to a penalty of £5.

If the dairyman fails to show cause why such an order may not be made as aforesaid, the Corporation may make the said order, and shall serve the notices prescribed by the Act. The order of the Corporation shall be withdrawn when they are satisfied of the safety of such withdrawal. If any person supplies milk in contravention of such order he shall be liable to a penalty of £5, and a further penalty of 40s. per day for every day the offence continues.

A dairyman shall not be liable to an action for breach of contract if the breach be due to an order under this section. A dairyman may appeal against an order under this section either to a Petty Sessional Court having jurisdiction within the Borough or at his option, if the dairy is situate outside the Borough, to the Board of Agriculture, who shall appoint an officer to hear such appeal. The Board of Agriculture may require a dairyman appealing to give security for costs. If an order is made without due cause the Corporation may be required to pay full compensation for any damage sustained by reason of such order. The Court or the Board may determine and state whether any such order has been made or not withdrawn without due cause, or whether the dairyman has been in default. Disputes under this section not determined by the Court or the Board of Agriculture shall be determined by arbitration as provided in section 308 of the Public Health Act, 1875.

Dated this 14th day of November, 1902.

HAROLD JEVONS,
TOWN CLERK.

List of Streets in which Deaths from the following diseases have occurred :—

[illegible]

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total.
Florence Street..	3	...	...	...	...	...	...	...	...	1	...	...	1	2
Farrimond's Yd.	3	...	...	...	...	1	...	...	...	...	...	...	2	3
Fisher's Yard ...	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Fowden Street...	5	...	...	...	...	...	...	...	...	1	...	...	2	3
Faggy Laue	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Fairhurst Street	7	...	...	...	...	...	...	...	1	...	...	...	...	1
Frog Lane, 90-186, 1-75	8	...	...	...	...	...	...	...	...	2	...	...	6	8
Francis Street...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Foster's B'ld'gs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Field Street.....	8	...	...	...	...	...	...	...	...	1	...	...	...	1
Foster Street.....	8	...	...	...	...	...	...	2	...	...	...	...	1	3
First Avenue ...	8	...	...	...	...	...	...	...	...	1	...	1	1	3
Folly	9	...	...	...	...	...	...	...	...	...	...	...	3	3
Freckleton St....	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Foy Street	10	...	...	...	...	...	...	...	...	1	...	...	2	3
Fairclough St....	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Fairclough's Ct.	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Frog Lane	10	...	...	...	...	...	...	...	...	3	...	...	4	7
Fleming's Yard.	10	...	...	...	...	...	...	...	...	...	...	...	1	1
Hallgate	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Greenough St.	1	...	...	...	...	...	...	...	...	...	...	...	...	...
(Even)	1	...	...	...	...	1	...	...	...	1	...	...	...	2
Greenough's Yd.	1	...	1	...	...	...	...	...	...	...	...	...	...	1
Greenough St.	2	...	...	...	...	...	1	...	...	...	...	...	2	3
(Odd)	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Golborne Street.	3	...	...	...	...	...	...	...	1	4	...	...	4	9
Gaskell Street...	3	...	...	...	...	...	...	...	...	1	...	...	1	2
Gee Street	4	...	...	...	...	...	...	...	...	1	...	...	1	2
Grundy's Yard..	4	...	...	...	...	...	...	...	...	...	...	...	1	1
Greenough's Row	4	...	...	...	...	1	...	...	...	...	...	...	3	4
Garden Street ...	4	...	...	...	...	...	...	...	...	1	...	1	2	4
German's Yard.	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Gerard Street ...	6	...	...	...	...	1	...	...	...	...	...	...	...	1
Great George St.	7	...	...	...	...	...	1	...	2	5	...	1	10	19
Gidlow Lane ...	8	...	...	...	...	1	...	...	...	3	...	...	4	8
Glebe End St....	8	...	...	...	...	1	...	...	...	...	...	...	...	1
Griffin Yard....	9	...	...	...	...	...	...	...	...	1	...	...	...	1
Golden Cross Yd.	9	...	...	...	...	...	1	...	...	...	...	...	1	2
Grayson's Yard	9	...	...	...	...	...	...	...	...	...	...	...	4	4
Hilton's Yard ...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Harrison's Sq....	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Howard Street...	2	...	...	...	...	...	...	...	...	...	...	...	1	1
Hen Street.....	3	...	...	...	...	...	...	...	...	1	...	...	1	2
Holland Street..	3	...	...	...	...	...	...	...	...	4	...	...	4	8
Higham Street..	4	...	...	...	...	...	...	...	...	5	...	...	3	8
Hardybutts	4	...	1	...	...	...	...	...	...	5	...	...	13	19
Hilton's Yard ...	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Henry Street....	5	...	...	...	...	...	...	...	...	1	...	...	...	1
Hodson Street...	5	...	...	...	...	...	...	...	...	...	...	1	...	1
Haslam's Yard..	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Hopwood Street	5	...	...	1	...	...	...	...	...	...	...	...	2	3
Herbert Street..	7	...	1	...	...	...	...	...	1	2	...	...	2	6
Howard's Yard.	7	...	...	...	...	...	...	...	1	...	...	...	...	1
Hey Street.....	8	...	...	...	...	...	1	...	1	2	...	...	4	8
Horsefield Street	8	...	...	...	...	...	...	...	...	...	...	...	2	2
Holt Street	8	...	...	...	...	...	...	...	...	...	...	...	3	3
Hodges Stree ...	8	...	...	...	...	...	...	...	...	...	...	...	1	1
Holme Street....	9	...	1	...	...	...	...	...	...	...	...	...	...	1
Holme Terrace...	9	...	...	...	...	...	...	...	...	1	...	...	...	1
Heaton Street ...	9	...	...	...	...	...	...	...	...	...	...	...	1	1
High Street	9	...	...	...	...	...	1	...	...	1	...	...	2	4
Hilton Street....	9	...	...	...	...	...	...	...	...	1	...	...	1	2
Hilton's Yard ...	10	...	...	...	...	...	...	...	...	1	...	...	1	2

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total.
Harrogate Street	10	...	...	...	...	...	...	...	...	1	...	...	...	2
Hope Street.....	10	...	...	1	...	...	...	...	...	1	...	...	...	3
Hallgate	10	...	...	...	...	...	...	...	...	2	...	...	...	5
Ironmonger Lane	5	...	...	...	...	...	...	...	1	...	...	...	...	3
Ingram Street ...	8	...	...	...	...	...	...	...	1	1	...	...	...	2
Jews' Yard, Millgate	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Jockey Terrace..	1	...	...	...	...	...	1	...	...	2	...	...	...	3
Jane Street.....	3	...	...	...	...	1	...	...	...	...	...	...	...	...
John Street.....	4	...	...	...	...	...	...	...	...	2	...	...	...	1
Johnson Street.	4	...	...	...	...	...	...	...	...	...	...	...	...	1
Johnson Terrace	5	...	...	...	...	...	...	...	...	...	...	...	...	2
James Street, Bradford St...	5	...	...	...	...	...	...	...	1	1	...	...	...	3
James Street, Chapel Lane ..	5	...	...	...	...	...	...	...	...	...	...	...	...	1
Jordan's Yard, Lyon Street	7	...	...	...	...	...	...	...	...	1	...	...	...	2
Jackson's Yard, Appleton St...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Jackson's Row ..	9	...	...	...	...	...	...	...	...	...	...	...	...	2
Kay Street	1	...	...	...	...	...	...	...	...	1	...	...	...	3
Kendrick Street.	3	...	...	...	...	...	...	...	...	1	...	...	...	2
Kirkless Street...	3	...	...	...	...	...	...	...	...	2	...	...	...	2
Kent Street.....	4	...	...	...	...	...	...	...	...	...	...	...	...	1
Kearsley Street.	8	...	...	...	...	...	...	...	...	1	...	...	...	1
Kendal Street ...	8	...	...	...	...	...	1	1	1	...	...	...	...	4
King Street,....	10	...	...	...	...	...	...	...	...	...	...	...	...	2
Low Street	1	...	...	...	...	...	...	...	...	1	...	...	...	2
Lower Morris St.	1	...	1	...	...	...	...	1	...	2	...	...	9	13
Lime Street	1	...	...	1	...	...	...	...	10	...	...	...	8	20
Lamb Street.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Longshoot	2	...	...	...	...	...	...	...	...	2	...	...	2	4
Lindsay Street ..	2	...	...	...	...	...	...	...	...	1	...	...	2	3
Linney Street....	3	...	...	...	...	...	...	...	...	2	...	...	2	4
Lorne Street	3	...	...	...	...	...	...	...	...	1	...	...	3	4
Leader Street....	3	...	...	...	...	...	...	...	1	1	1	...	...	3
Leach's Yard, Rellvoir Street	4	...	...	...	...	...	...	...	...	...	...	...	2	2
Lowe's Square, Hardybutts ...	4	...	...	...	...	...	...	...	...	...	...	...	...	1
Lymm Street	4	...	...	...	...	...	...	...	...	1	...	...	...	2
Latham's Yard, Queen Street..	5	...	...	...	...	...	...	...	...	1	...	...	...	2
Lyon's Yard	5	...	1	...	...	...	...	...	...	...	...	...	...	2
Latham's Yard..	5	...	...	...	...	...	...	...	...	1	...	...	...	2
Letterewe Street	6	...	...	...	...	...	...	...	...	...	...	...	1	1
Lea Street.....	7	...	...	...	...	...	...	...	1	1	...	...	1	3
Leeds Street.....	7	...	...	...	...	...	...	...	...	...	...	...	1	1
Lyon Street	7	...	...	...	...	...	...	...	...	3	...	...	2	5
Lancaster's Ent.	7	...	...	...	...	...	...	...	1	...	...	...	...	1
Lea's Ynrd, Pitt Street	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Lea's Square, Prescott Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Layland Street..	8	...	...	...	...	...	...	...	...	1	...	...	1	2
Lower St. Stephen Street	8	...	...	...	...	...	...	...	...	1	...	1	4	6
Little London ...	9	...	...	...	...	...	...	...	...	...	...	...	1	1
Lord Street	9	...	...	...	...	...	...	...	...	2	...	...	...	2
Lansdown Ter...	9	...	...	...	...	...	...	...	...	1	...	...	...	1
Millgate (Even).	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Marsh Lane, 1-7, 2a-8a.....	1	...	...	...	...	...	1	...	1	...	...	...	3	5

[illegible]

Street.	Ward.	Small-pox.	Scarlet.	Enteric.	Typhus.	Diphtheria.	Whoop. Cough.	Measles.	Diarrhoea.	Pulmonary.	Rheumatism.	Cancer.	Others.	Total
Victoria Street..	5	...	...	...	...	...	...	...	...	1	...	...	5	6
Vere Street.....	7	...	...	...	...	...	1	...	1	1	...	...	2	5
Vitriol Fold.....	8	...	...	...	...	...	...	...	...	...	...	...	2	2
Withnall Street.	1	...	...	...	...	...	1	...	...	...	...	...	1	2
Wolfendale's Yard	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Wood's Square,	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Walmesley Sq...	1	...	...	...	...	...	...	...	...	2	...	...	...	2
Worsley's Yard	1	...	...	...	...	...	...	...	...	...	...	...	1	1
Water Street....	1	...	...	...	...	...	...	1	...	...	...	...	2	3
Water Heyes Rd. Terrace	2	...	...	...	...	...	...	...	...	...	...	...	1	1
Westminster St.	2	...	...	...	...	...	...	...	...	...	1	...	...	1
Windsor Street.	2	...	...	...	...	...	...	...	...	1	...	...	2	3
Weston Street...	2	...	...	...	...	...	...	...	...	...	...	...	1	1
Whelley (Even).	2	...	...	1	...	...	...	...	...	3	...	...	3	7
Wright Street...	2	...	...	1	...	...	...	...	...	1	...	...	...	2
Wallace Lane ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Whelley (Odd) ..	3	...	1	1	...	...	1	...	2	...	...	...	5	10
William Street..	3	...	...	...	...	...	1	...	...	...	...	...	1	2
Wellington St...	4	...	...	...	...	...	...	...	...	2	...	...	...	2
Warrington Lne	4	...	...	...	...	...	1	...	1	...	...	...	5	7
Wilton Street...	4	...	...	...	...	...	...	...	...	...	...	...	2	2
Wallgate, 69-135	5	...	...	...	...	...	...	...	...	2	...	...	...	2
Woods' Street...	5	...	...	...	...	...	...	...	1	2	...	...	2	5
Woods' Grove...	5	...	1	...	...	...	...	...	...	...	...	...	...	1
Wood Street ...	5	...	...	...	...	...	...	...	...	...	...	...	1	1
Wallgate, 267-313, 250-304	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Wignall Street...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Walmer Street ..	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Wilcock Street..	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Wallg'te, 104.248	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Waddington's Buildings	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Walker's Yard.,	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Woodhouse Lne.	8	...	1	...	...	...	...	...	...	...	...	...	...	...
Waterloo Street.	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Wrightington St	9	...	...	1	...	...	...	...	...	...	...	...	...	...
Wigan Lane.....	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Warnford Street	9	...	...	...	...	...	1	...	...	...	...	...	...	...
Woods' Yard, Duke Street...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Wright's Yard..	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Whittaker's Yd.	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Wallgate, 1-61, 2-92	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Woodc'ck Street	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Yates' Yard.....	2	...	...	...	...	...	...	...	1	...	...	...	...	...
Yates Street.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...
York Street	7	...	...	...	...	...	1	...	...	...	...	...	...	...

LOCAL GOVERNMENT BOARD SCHEDULES.

TABLE I.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1902 AND PREVIOUS YEARS.

Name of District—Wigan County Borough.

Year.	Popula- tion estima- ted to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institu- tions in the District	Deaths of Non- resi- dents regis- tered in Public Institu- tions in the District	Nett Deaths at all Ages belong- ing to the District.	
				Under 1 Year of Age.		At all Ages.					
		Num- ber.	Rate.	Num- ber.	Rate per 1,000 Births regis- tered.	Num- ber.	Rate.			Num- ber.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12
1892	56040	2336	42·0	407	174	1367	24·4	199			
1893	57483	2316	40·6	438	187	1388	24·2	190			
1894	58529	2146	37·1	341	158	1100	18·9	194			
1895	59469	2256	38·04	413	187	1317	22·52	244			
1896	60235	2144	35·94	400	186	1376	23·09	158			
1897	61202	2247	37·16	395	175	1270	20·99	246	106		
1898	61697	2159	34·49	369	170	1182	18·88	225	91		
1899	62630	2148	34·39	422	195	1368	21·91	253	116		
1900	63400	2177	34·49	404	190	1520	24·01	290	133	1387	21·95
1901	60923	2245	36·40	457	203	1537	24·87	280	158	1379	22·30
Averages for years 1892-1901.	60160	2217	37·06	404	182	1342	22·37	227			
1902	61827	2311	37·42	366	158	1393	22·58	269	142	1251	20·25

Area of District in acres (exclusive of area covered by water), 2,188. At Census of 1901 the total population at all ages was 60,077; number of inhabited houses, 11,120; average number of persons per house, 5·4. Institutions within the district receiving sick and infirm persons from outside the district: Wigan Union Workhouse, Wigan Sanatorium, and Wigan Infirmary.

TABLE II.—VITAL STATISTICS OF SEPARATE LOCALITIES IN 1902
AND PREVIOUS YEARS.

Name of District—Wigan County Borough.

YEAR.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1892	56040	2336	1367	407
1893	57483	2316	1388	438
1894	58529	2146	1100	341
1895	59469	2256	1317	413
1896	60235	2144	1376	400
1897	61202	2247	1270	395
1898	61697	2159	1182	369
1899	62630	2148	1368	422
1900	63400	2177	1387	404
1901	60923	2245	1379	457
Averages of Years 1892 to 1902 ... }	60160	2217	1342	404
1901	61827	2245	1251	366

TABLE III.—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1902.

Name of District—Wigan County Borough.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							Cases removed to Hospital.
	At all ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upw'ds.	
Small-pox	4	—	—	2	1	1	—	4
Diphtheria	58	3	23	23	4	5	—	1
Membran. croup	2	—	2	—	—	—	—	—
Erysipelas	65	3	2	4	7	48	1	1
Scarlet fever ...	557	1	189	337	22	8	—	246
Enteric fever ...	76	—	2	25	21	28	—	49
Puerperal fever..	10	—	—	—	2	8	—	—
Chicken-pox ...	1	—	1	—	—	—	—	—
Measles.....	351	19	254	76	1	1	—	—
Totals	1124	26	473	467	58	99	1	301

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1902.
Name of District—Wigan County Borough.

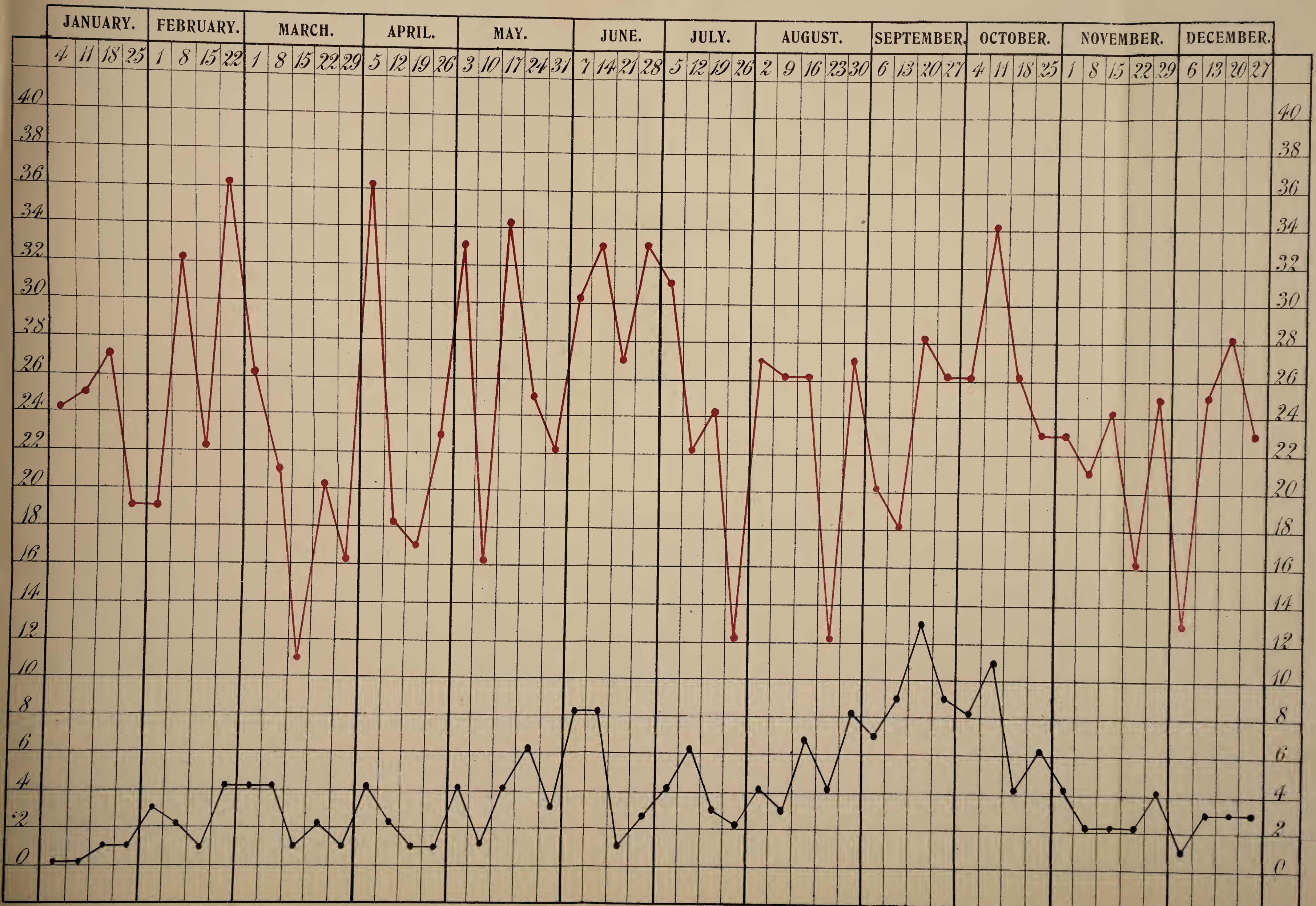
CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							Total Deaths in Public Institu- tions in District.
	All Ages.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.	
Measles	20	4	16	—	—	—	—	—
Scarlet fever ...	33	2	27	4	—	—	—	—
Whoopi'g cough	37	17	20	—	—	—	—	—
Diphtheria and membran. croup	24	2	17	5	—	—	—	—
Enteric fever ...	14	—	—	3	4	7	—	—
Diarrhœa	57	43	12	—	—	2	—	—
Puerperal fever..	10	—	—	—	2	8	—	—
Erysipelas	7	2	1	—	—	4	—	—
Phthisis	55	5	11	2	12	24	1	—
Other tubercular diseases	13	3	7	2	—	1	—	—
Cancer, malig- nant disease ...	31	—	—	—	—	28	3	—
Bronchitis	158	28	8	—	3	87	32	—
Pneumonia	200	38	53	11	13	78	7	—
Premature birth	44	44	—	—	—	—	—	—
Heart diseases...	53	1	—	6	2	34	10	—
Accidents	34	3	12	6	3	10	—	—
Suicides	6	—	—	—	1	5	—	—
Wasting disease	50	50	—	—	—	—	—	—
Convulsions ...	34	34	—	—	—	—	—	—
Rheumatism ...	7	—	1	1	2	3	—	—
All other causes	364	103	31	23	11	124	72	—
All causes	1251	379	216	63	53	415	125	269

DEATH RETURNS.—CHART I.

1902.

All Causes (Red).

Zymotics (Black).

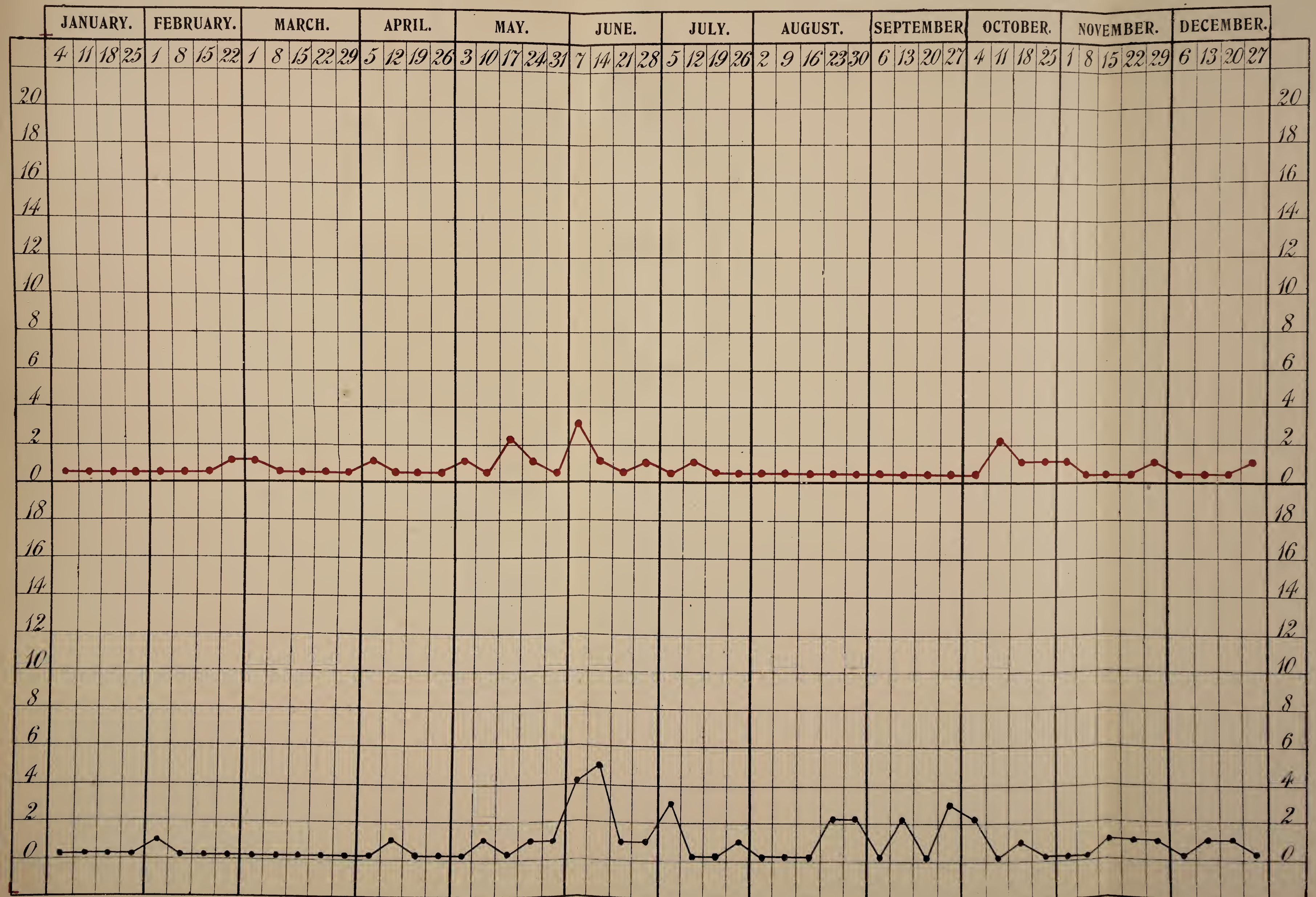


DEATH RETURNS.—CHART II.

1902.

Measles (Red).

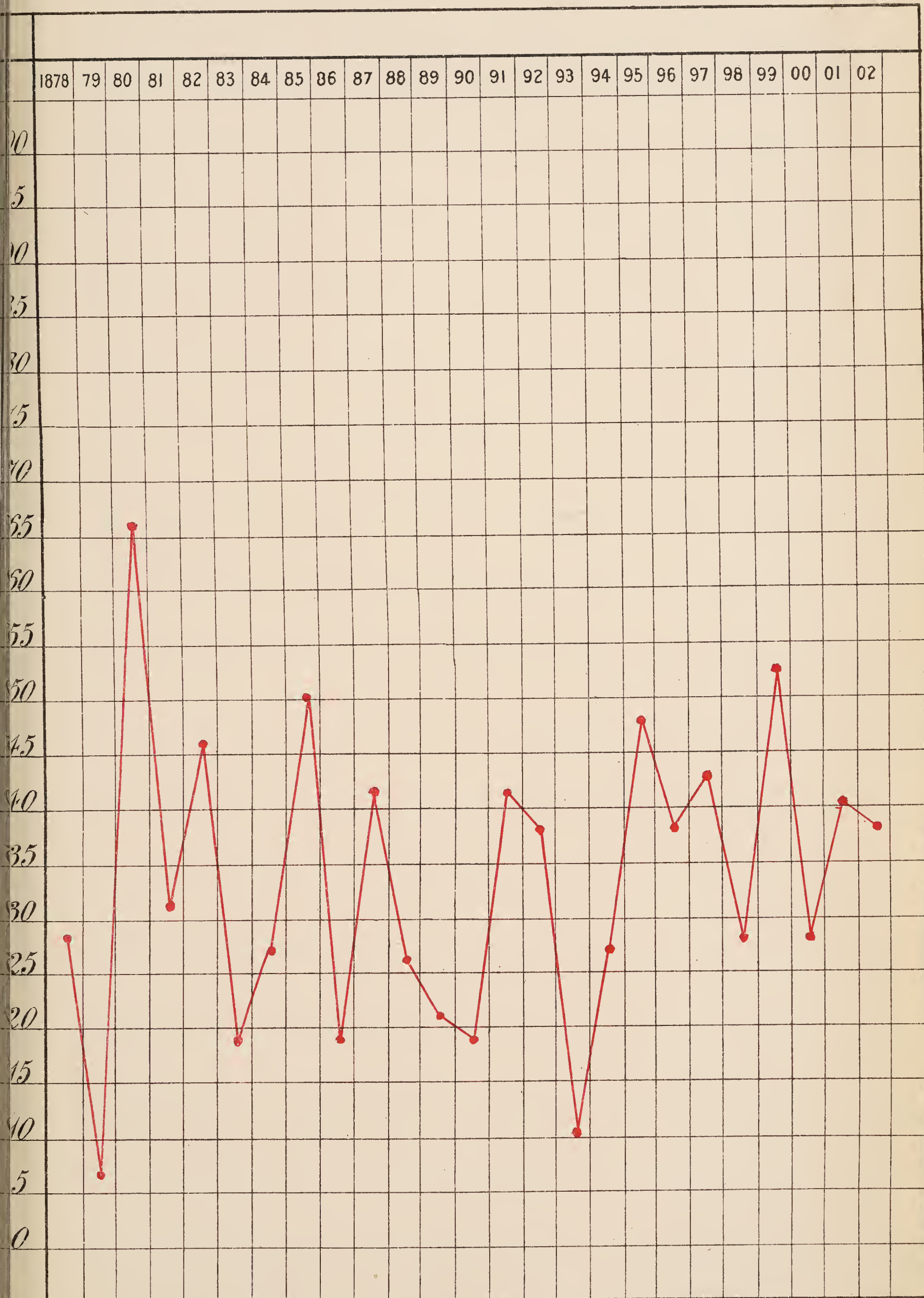
Whooping Cough (Black).



DEATH CHART—I.



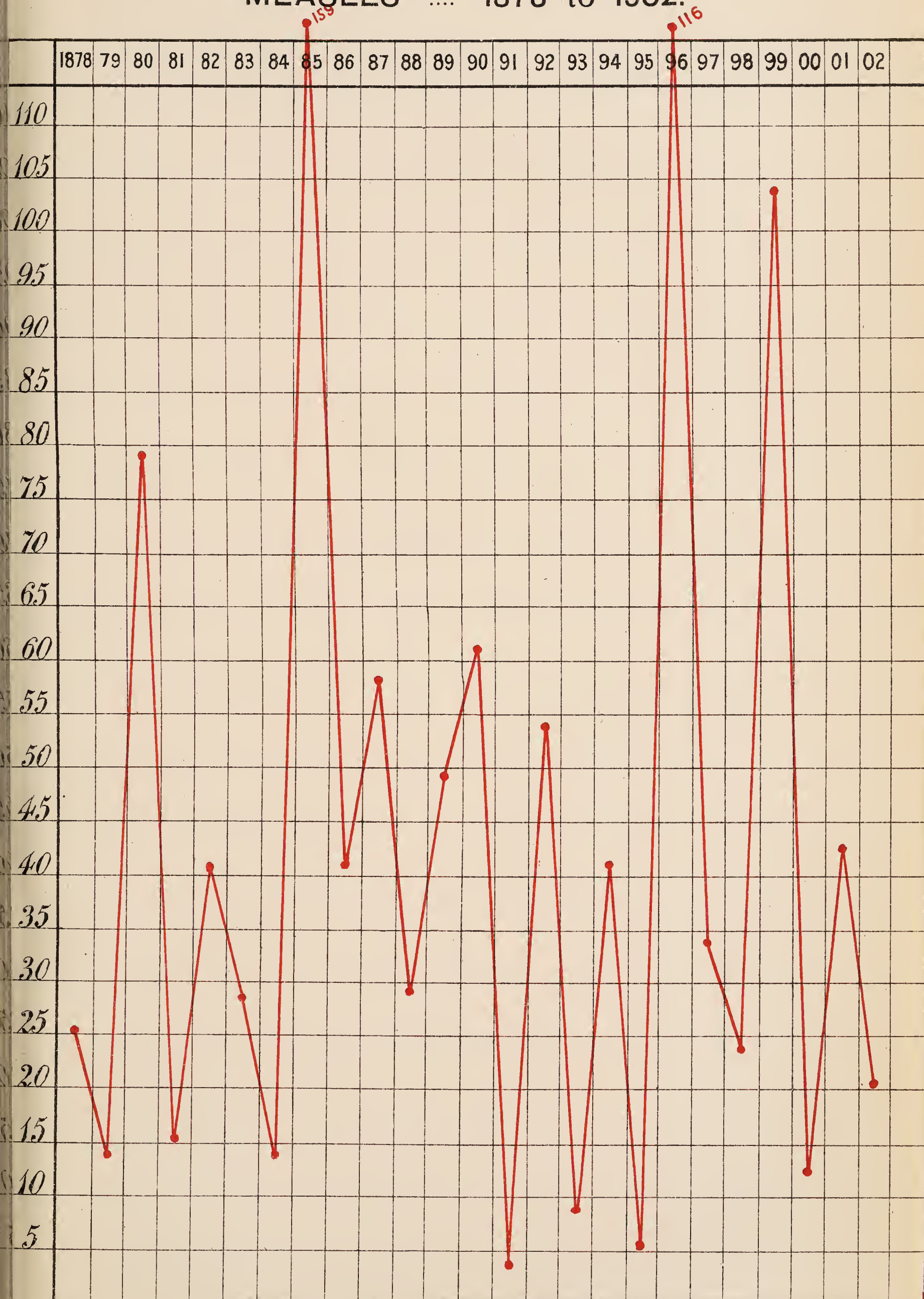
WHOOPING COUGH 1878 to 1902.



DEATH CHART.



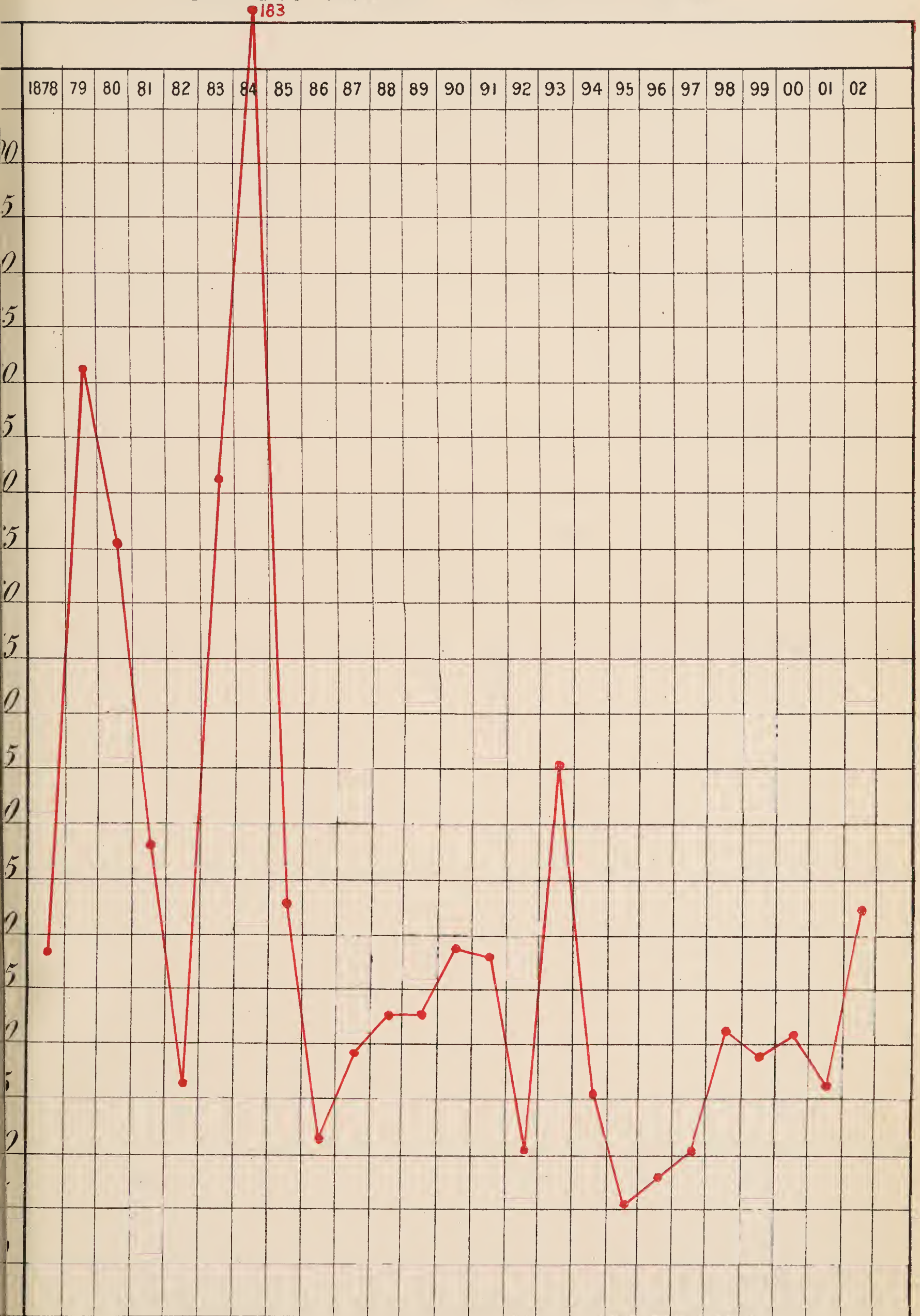
MEASLES 1878 to 1902.



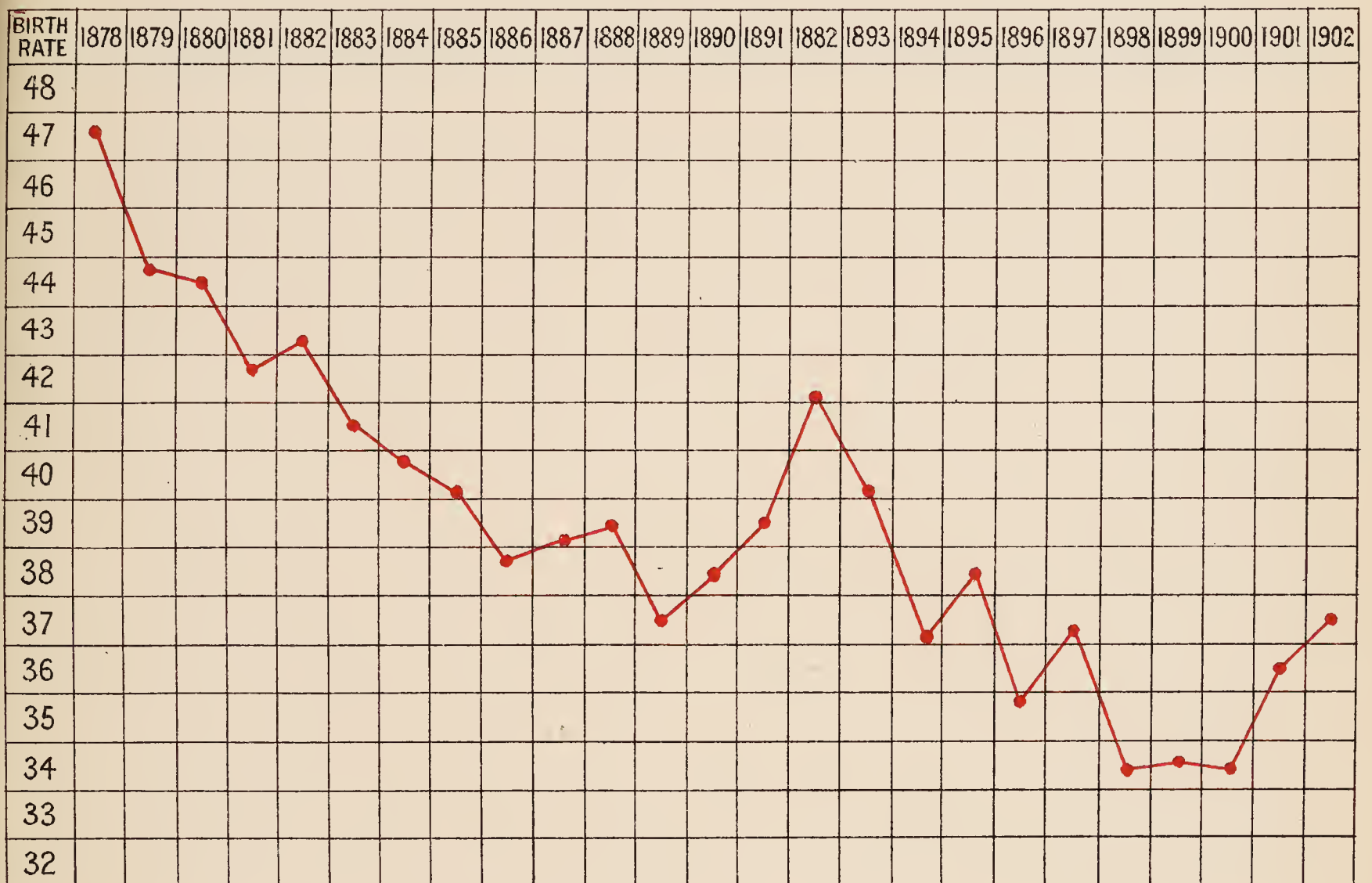
DEATH CHART.



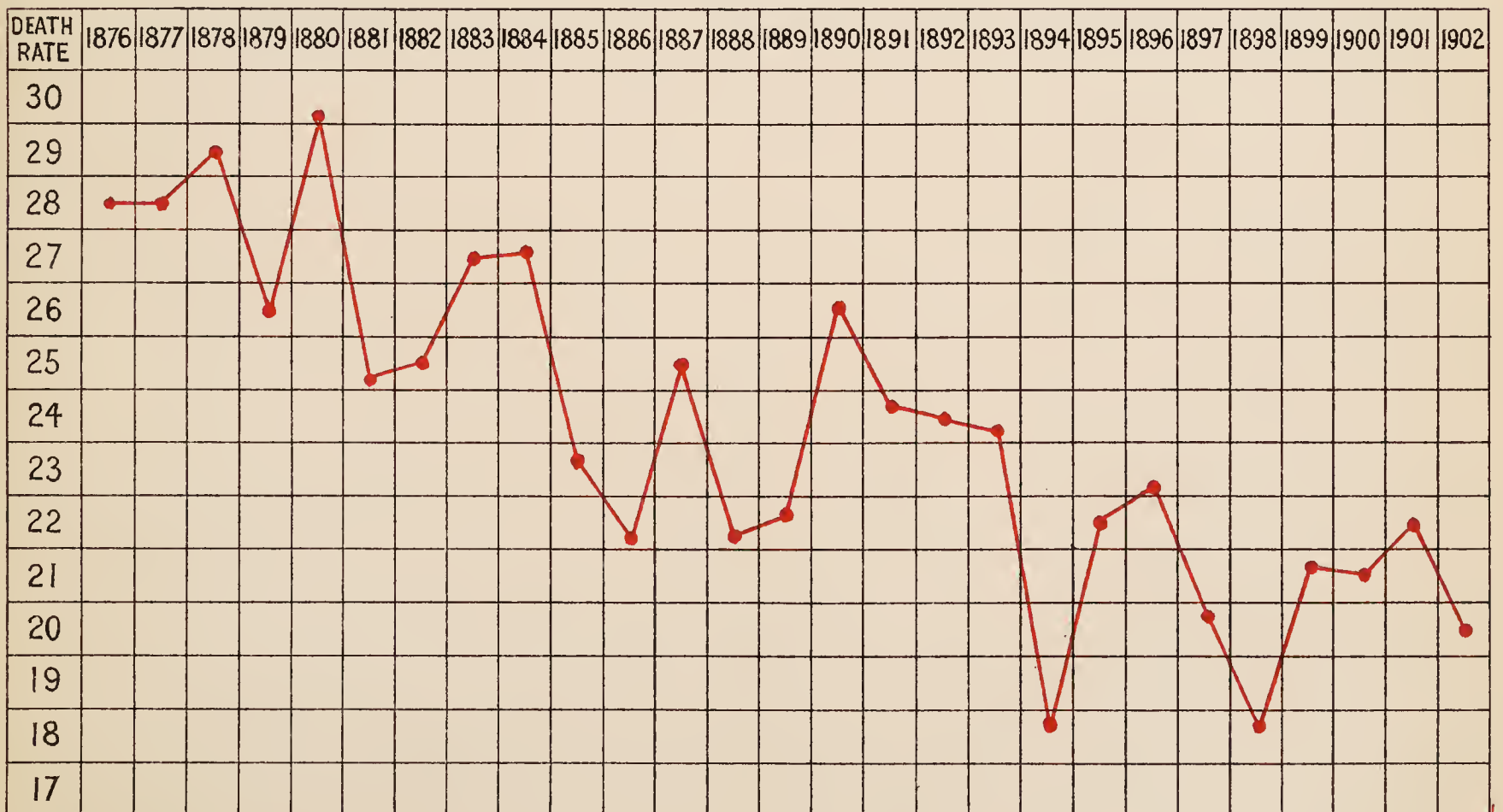
SCARLET FEVER 1878 to 1902.



BIRTH-RATE, WIGAN, 1878-1902.



DEATH-RATE, WIGAN, 1876-1902.



County Borough of Wigan.



ANNUAL REPORT

OF THE

Chief Sanitary Inspector.

1902.

WIGAN :

THOS. WALL AND SONS LTD., PRINTERS, "OBSERVER" OFFICE,
1903.

TABLE OF CONTENTS.

Summary of Nuisances dealt with	...	...	...	...	...	119
Common Lodging-Houses	...	...	...	...	...	120
Slaughter-Houses, &c.	...	...	...	...	...	121
Fellmongers	...	...	...	...	...	122
Gut Scrapers	...	...	...	...	...	122
Canal Boats	...	...	...	...	...	123
Smoke Observations	...	...	...	...	...	123
Disinfection, 1902	...	...	...	...	...	123
Food and Drugs and Margarine Acts			...	...	...	124
Factory and Workshops Acts.	...	...	...	...	...	125
Shop Hours Acts	...	...	...	...	...	125

Annual Report of the Chief Sanitary Inspector, 1902.

SANITARY DEPARTMENT,

14, RODNEY STREET,

WIGAN.

*To the Chairman and Members of the Sanitary and
Sewerage Committee.*

SIR AND GENTLEMEN,

I have the honour to submit to you my Twelfth Annual Report of the work done by the members of the staff of this department during the year ending December 31st, 1902.

The work during that period has been of a particularly heavy nature on account of the number of infectious cases notified, and an inspector has had to devote the whole of his time visiting to see that the Medical Officer of Health's instructions were being properly carried out.

The following is a summary of nuisances dealt with in 1902.

Houses and Premises Inspected	..	...	...	4,981
Nuisances Discovered	...	...	...	2,002
„ Abated	...	...	...	1,620
Notices Issued (Preliminary)	...	...	...	909
„ (Formal)	...	...	...	832
Letters Written <i>re</i> Nuisances	...	...	...	140
Re-inspections made	...	...	...	4,839
Nuisances remaining on books December 31st, 1902...				354

DESCRIPTION OF NUISANCES DEALT WITH.

Defective Drainage	...	...	...	...	156
Choked Drains	...	..	...	...	134
Defective Gullies...	...	...	...	...	75
Gullies Requiring Grids	...	...	...	...	65
Defective Sink Waste Pipes and Slopstones	...	...	...	...	56
Sink Pipes connected to Drains...	...	...	...	...	22
Bath and Lavatory Waste Pipes connected to Soil Pipes or Drains	...	...	...	...	9
[] Bath and Lavatory Waste Pipes Defective	...	...	...	...	2

Soil Pipes Defective	...	...	...	...	...	14
„ Unventilated	...	...	...	...	...	2
Defective W.C.'s	...	...	...	...	...	16
„ Pail Closets, &c.	...	...	...	...	...	113
„ and Choked Waste Water Closets	...	...	...	...	...	64
„ Ash Places	...	...	...	...	...	78
„ Privies	...	...	...	...	...	6
Water Closets without proper Water Supply	...	...	...	...	...	2
Defective Water Closet Cisterns	...	...	...	...	...	4
Insufficient Closet Accommodation to Houses or Workshops	...	...	...	...	...	9
Defective Urinals	...	...	...	...	...	2
„ Spouts (Eaves and Downspouts and want of Spouting)	...	...	...	...	...	220
„ Roofs	...	...	...	...	...	79
„ and Unpaved Yards or Passages	...	...	...	...	...	131
Houses without proper Drainage	...	...	...	...	...	23
„ Overcrowded or Keeping Lodgers	...	...	...	...	...	97
„ Premises Filthy	...	...	...	...	...	122
„ with Filthy Closets	...	...	...	...	...	60
„ „ Yards	...	...	...	...	...	15
„ with Damp or Defective Walls	...	...	...	...	...	79
„ without through and proper Ventilation and Back-to-Back Houses	...	...	...	...	...	27
Defective Middensteads	...	...	...	...	...	9
Accumulation of Manure	...	...	...	...	...	30
„ Water	...	...	...	...	...	3
„ Rubbish	...	...	...	...	...	12
Workshops insufficiently Ventilated	...	...	...	...	...	1
Keeping of Animals (including Poultry and Pigeons)	...	...	...	...	...	107
Dirty Bakehouses (requiring Limewashing)	...	...	...	...	...	42
„ Workshops	„	...	...	...	...	25
Houses with Foul Closets	...	...	...	...	...	3
Miscellaneous	...	...	...	...	...	88

Prosecutions, 7.

Convictions, 7.

Fines, &c., 1 ; 1s. and costs.

„ 2 ; 1s. and costs.

„ 3 ; 1s. and costs.

„ 4 ; summons withdrawn on payment of costs.

„ 5 ;

„ 6 ; seven days' order made, and pay costs.

„ 7 ; order made, and pay costs.

COMMON LODGING HOUSES.

These houses have been regularly visited both by day and night, and have generally been found satisfactory. In some instances the bye-laws were not always being strictly carried out, but a word of warning was found sufficient to have matters properly attended to.

Many of the houses are totally unfitted for the purposes of Common Lodging Houses, and are therefore more difficult to control, but taken on the whole they are very well conducted.

In December there were two outbreaks of small-pox in two Common Lodging Houses; the patients were removed to the Decker Hospital, the other patients were quarantined with good results.

No. of Common Lodging Houses Registered	...	17
„ Lodgers Registered for (per night)	...	699
„ Visits by Day...	...	1,477
„ „ Night	...	295
„ Lodgers Housed during year (as per C. L. H. Returns)	...	178,928

HOUSES.

No. on Register.					Registered for
5	1, 3, and 5, Union Street	...	...	...	48
6	16, Hardybutts	...	...	...	8
7	87, 89, and 91, Millgate	...	...	...	60
8	1, Hardybutts	...	...	...	100
10	31, Scholes	...	...	...	15
12	7, Wiend	...	...	...	20
13	1, Swift's Yard, Millgate	...	...	...	38
14	7, Hardybutts	...	...	...	12
15	32, Hardybutts	...	...	...	29
24	28, Wiend	...	...	...	41
26	30, Hallgate	...	...	...	16
34	27, Hallgate	...	...	...	85
35	19, Warrington Lane	...	...	...	33
36	5, 7, and 9, Scholes	...	...	...	37
37	7 and 9, Union Street	...	...	...	52
38	36 and 38, Hardybutts	...	...	...	88
39	21, Hardybutts	...	...	...	17

SLAUGHTER HOUSES.

The number of houses registered is 20; there are also two Fellmongering and two Gut Scraping establishments in the borough; they are fairly well kept, and are regularly visited. I have frequently drawn attention to the want of a Public Slaughter House, and I trust the deliberations of the Committee appointed for the purpose will soon give their report.

No. of Visits to Slaughter Houses	...	2,000
„ Markets	...	120
No. of Prosecutions, 1. Case Dismissed.		

SLAUGHTER HOUSES.

1	Behind 8, Darlington Street...	...	W. Moore.
2	„ 60, Darlington Street	...	J. H. Green.
6	Upper Morris Street ...	...	W. Walsh.
7	Rigby's Buildings, Scholes ...	...	H. Smith.
8	Behind 124, Scholes ...	...	J. Watts.
11	Wiend... ..	...	H. Sawbridge.
12	Water Street ...	...	J. H. & W. Cordeaux.
14	Behind 75, Wigan Lane ...	...	J. Jackson.
18	Bottom Croft ...	...	W. R. Dunbar.
19	Shaw's Yard, Hallgate ...	...	J. Smirk.
24	Clayton Street ...	...	C. Sawbridge.
28	Hilton's Yard, Scholes ...	...	J. Hilton.
29	Mill Yard ...	...	E. Hamill.
30	Behind 53, Birkett Bank ...	...	B. Turner.
32	Altham's Yard, Standishgate ...	...	L. Mynekyme.
35	New Square ...	...	F. Knorzer.
36	Silver Street ...	...	E. McAvoy.
39	Behind 133, Standishgate ...	...	J. Hill.
41	122, Scholes ...	...	J. Lowe.
42	Shaw's Yard, Hallgate ...	...	H. Hurst.

FELLMONGERS.

Millgate ...	...	T. E. Dix.
Church Street ...	...	J. Smith.

GUT SCRAPERS.

Shaw's Yard, Hallgate ...	...	Christopher Eckman.
Robin Hood Yard, Hallgate ...	...	Carl Harder.

The following statement shows the quantities of unwholesome meat, &c., seized and destroyed at the Miry Lane Depôt during the year :—

	Tons.	Cwts.	Qrs.
Beef ...	5	16	2
Pork ...	0	1	2
Fish (Flat, &c) ...	17	1	1
Fish (Shell) ...	0	17	0
Total ...	23	16	1

In addition to the above the following was destroyed :

	Tons.	Cwts.	Qrs.
Fish, Refuse, &c. ...	43	6	0

Number of beasts that have been inspected by request :—

No. of Beasts passed ...	67
„ condemned ...	12
Total ...	79

Quantities of other articles of food have also been inspected by request of consignees, and in most cases have been condemned and destroyed at Miry Lane Dépôt.

CANAL BOATS ACTS, 1877-1884.

The canal boats which pass through this district, with few exceptions, are in a very good condition. They are generally clean and well kept, and very few children have been found on board. When children of school age have been found on board it has generally been during the school holidays.

H.M. Inspector of Canal Boats (Mr. Llewellyn) has paid his annual visit to the town. He inspected my books, and afterwards expressed himself well satisfied with the manner in which the work was being carried out.

No. of Boats Registered at Wigan	...	...	...	121
„ Applications for Registration during 1902	...	...	...	3
„ „ Granted	...	...	...	3
„ Inspections	...	...	...	211
„ Notices Issued	...	...	...	2
„ Contravention of Regulations	...	...	...	2
„ Notices Complied with	...	...	...	2

SMOKE OBSERVATIONS.

The nuisance arising from the emission of dense black smoke from the chimneys of our factories is being coped with as well as the time at our disposal will admit; in each case where the nuisance was noted a letter was sent, and I am pleased to say more attention was paid to the firing, &c.

Smoke Observations Taken	...	...	...	27
Letters Sent Out	...	...	...	6

DISINFECTION, 1902.

Great pressure has been put on the department during the year on account of the large number of cases of infectious disease notified.

The elementary schools were also fumigated when closed on account of disease.

For the greater part of the autumn we have had to have temporary assistance in this branch of our work.

No. of Houses Disinfected	...	...	...	...	754
„ Rooms	...	...	...	...	1,137
„ Beds	...	...	...	...	624
„ Mattresses	...	...	...	...	404
„ Sheets and Quilts	...	...	...	...	2,322
„ Other Articles	...	...	...	...	1,794

No. of Premises Cleansed and Limewashed after Infectious Disease	...	...	...	...	622
No. of Visits to Houses <i>re</i> Cleansing and Limewashing (about)	...	...	...	...	1,860
No. of Visits to Houses <i>re</i> Infectious Disease (about)	...	...	...	...	4,500
No. of Letters sent out <i>re</i> Limewashing, &c.	...	...	...	...	43

SALE OF FOOD AND DRUGS ACTS, 1877 TO 1899.

MARGARINE ACTS, 1887 TO 1899.

During the past year the above Acts have been fully carried out, with the result the six prosecutions took place as shown below.

No. of Samples Obtained	...	...	...	165
„ Genuine	...	...	...	156
„ Adulterated	...	...	...	9

SAMPLES.

Milk	...	...	...	...	42
Butter	...	...	...	...	57
Margarine	...	...	...	...	3
Cheese	...	...	...	...	2
Coffee	...	...	...	...	6
Tea	...	...	...	...	1
Spirits	...	...	...	...	36
Lard	...	...	...	...	1
Shrimps	...	...	...	...	15
Pepper	...	...	...	...	2

Prosecutions, 6.

Convictions, 5.

Fines, &c., 1 ; £1 and costs.

„ 2 ; £1 „

„ 3 ; £1 „

„ 4 ; £1 „

„ 5 ; Pay costs.

„ 6 ; Case dismissed.

THE FACTORY AND WORKSHOPS ACTS AND THE SHOP HOURS ACT.

These Acts have received our attention, as will be seen from the appended report :—

Visits to Workshops	...	...	...	...	...	690
No. of Workshops Inspected	...	...	...	...	...	398
„ „ Re-inspected...	...	...	...	...	...	292
„ Workrooms Measured	...	...	...	...	...	84
„ „ Overcrowded	...	...	...	...	...	4
„ Workshops, Dirty Walls and Ceilings	...	...	...	...	...	142
„ „ Dirty Floors...	...	...	...	...	...	28
„ „ Insufficiently Ventilated	...	...	...	...	...	13
„ Defective Roofs	...	...	...	...	...	3
„ „ Floors and Stairs	...	...	...	...	...	14
„ „ Drains and Water Closets	...	...	...	...	...	8
„ Gullies in Bakehouses	...	...	...	...	...	16
Closet in Bakehouse	...	...	...	...	...	1
Separate Closet Accommodation provided for females in Workshops where both sexes are employed	...	...	...	...	...	5

In conclusion, Gentlemen, I must again thank you for your cordial support given to myself and staff during the past year; my thanks are also due to each individual member of my staff who have carried on the work to the entire satisfaction of the Medical Officer and myself.

I remain, Gentlemen,

Your obedient Servant,

JOHN SUMNER, Assoc. San. Inst.,

CHIEF SANITARY INSPECTOR.

